Intelligent Surface for OTRS

Version 3.3.4

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Contents

1. Overview **4**

2. Requirements **5**
2.1. OTRS . . . 5
2.2. ITSM . . . 5
2.3. Webserver . . . 5
2.4. Reference Environment . . . 5

3. OTRS Integration **6**
3.1. Installation . . . 6
3.2. Upgrade . . . 6
3.3. Uninstallation . . . 7
3.4. OTRS System Upgrade . . . 7

4. Settings **9**
4.1. IS core features . . . 9
4.1.1. Mail questionnaire to customer (IS::Default::MailCustomer) . . . 9
4.1.2. Mail to customer subject - (IS::Default::MailCustomerSubject) . . . 10
4.1.3. Default states (IS::Default::DefaultState) . . . 10
4.1.4. Default priority (IS::Default::DefaultPriority) . . . 10
4.2. Agent frontend . . . 10
4.2.1. Allow agents to administrate categories and questions . . . 10
4.2.2. Disabling the agent "Form" frontend . . . 10
4.3. Customer frontend . . . 11
4.3.1. Replace standard "New Ticket" button . . . 11
4.3.2. Disabling the customer frontend . . . 11

5. Administration **12**
5.1. Categories . . . 12
5.1.1. Add/edit category . . . 12
5.1.2. Delete category . . . 13
5.2. Questions . . . 13
5.2.1. Add/edit question . . . 14
5.2.2. Delete question . . . 15
5.2.3. Search question . . . 15
5.3. Mappings . . . 16
5.3.1. Add/edit mappings . . . 17
5.3.2. Delete mapping . . . 17

6. User interface **18**
6.1. Category selection . . . 18
6.2. Question block . . . 18
6.3. IS form within agent interface . . . 18

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A. Support **22**

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1. Overview

Intelligent Surface for OTRS 3 provides an additional form for the OTRS ticket system. It is used to create category based questionnaires for receiving new tickets. By answering the required questions your customers will provide all needed information for a quick response. Time consuming callbacks can be reduced to a minimum. Questions can require multiple answer options such as text, textfield, option selection, date selection or simply yes or no.

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2. Requirements

2.1. OTRS

Intelligent Surface was tested with OTRS 3.3.10 using a MySQL database. Technically there should be no limitation regarding the used database engine and Server Operating System.

2.2. ITSM

Intelligent Surface does not support any features of ITSM yet. An ITSM installation has no effect on Intelligent Surface.

If you have requirements regarding ITSM integration please contact email@haschmi.de.

2.3. Webserver

IS is running on Apache 2 and nginx web servers. For Apache please follow standard OTRS instructions, for nginx please use a web search for configuration or try this: http://www.haschmi.de/otrs-on-nginx/

Microsoft IIS was not tested and is not supported - please do not ask for support.

2.4. Reference Environment

There are two reference testing environments for IS.

Development Environment:

- Mac OS X 10.10
- Apache 2
- MySQL 5.6

Demo Enviroment:

- Ubuntu 14.04
- nginx 1.4
- MySQL 5.6

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3. OTRS Integration

3.1. Installation

Intelligent Surface is distributed as OTRS package (.opm) to be installed within the OTRS administration panel. All required files, database tables and setting will automatically be created. Simply login in with an administrator account, select "Admin" and then "Package Manager" from the "System Administration" block. Select your downloaded opm package file and press the "Install Package" button.

Since OTRS introduced its package verification "Service" you will receive a warning regarding the installation of IS. Please ignore that warning. For various reasons we are not joining the OTRS package verification process.

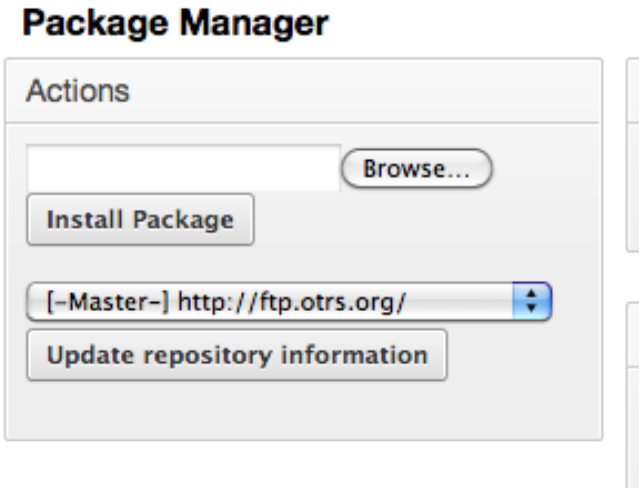

Figure 3.1.: OTRS Package Management

The package installation will show a welcome screen which has to be confirmed.

You can upgrade IS 1.0.x, 1.1.x and IS2 (2.0.x) to IS3 without loosing any data. Please refer to to the "Upgrade" section.

3.2. Upgrade

Newer versions of Intelligent Surface will again be provided as OTRS packages (.opm) and can be installed without loosing any existing data.

To upgrade OTRS follow the steps of the installation. Only updated files of IS3 will be installed.

Although there are no reports of lost data due to upgrade yet it is recommended to create a backup before starting the process.

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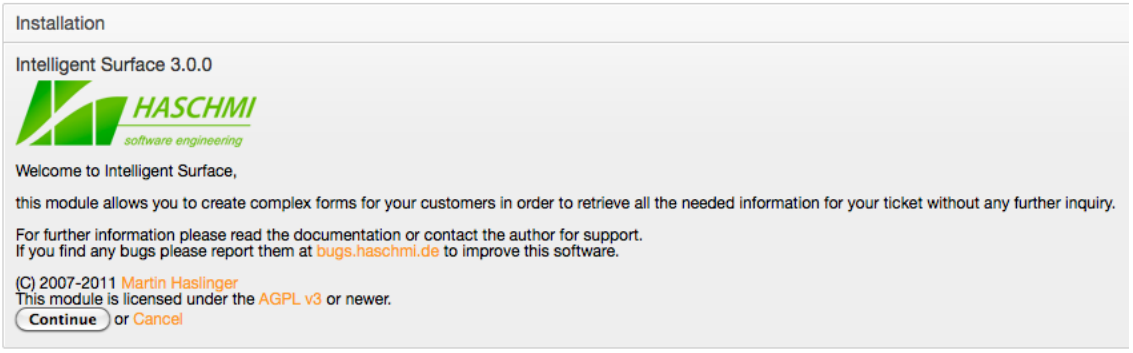


Figure 3.2.: Intelligent Surface 3 - Installation welcome screen

3.3. Uninstallation

Intelligent Surface can be uninstalled using the "Package Manager" of OTRS. Inside the "Local Repository" block choose the "Uninstall" link next to the Intelligent Surface line.

WARNING: All data and all files will be deleted and cannot be recovered if you decide to install Intelligent Surface later again. Also your IS database contents will be deleted! Please backup all is_* tables for later use.

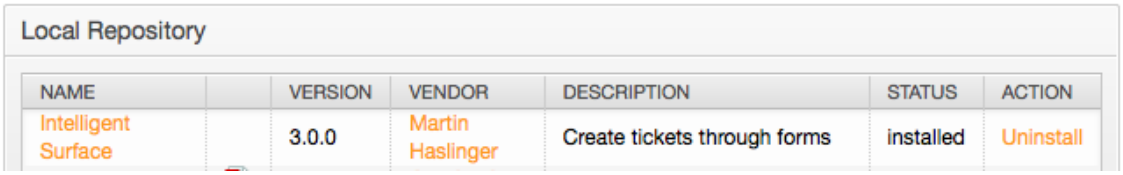


Figure 3.3.: Uninstall through Package Manager

In order to finally uninstall IS3 from your OTRS system you will have to confirm the IS3 Uninstallation and OTRS Uninstall Package dialogs.

3.4. OTRS System Upgrade

Intelligent Surface does no direct user interface or database interactions. All layers are implemented within the OTRS 3 framework. Therefore upgrading to newer versions of OTRS will not affect the functionality of Intelligent Surface as long as the OTRS API is not changed by this upgrade. Bugfix upgrades (3.0.x) will always be safe but minor upgrades (3.x.x) might change used API.

Yet almost all major OTRS upgrades included API changes. The following list maps IS versions to their supported OTRS version.

IS	OTRS
2.x	2.4.x
3.0.x	3.0.x
3.1.x	3.1.x, 3.2.x
3.2.x	3.1.x, 3.2.x
3.3.x	3.3.x

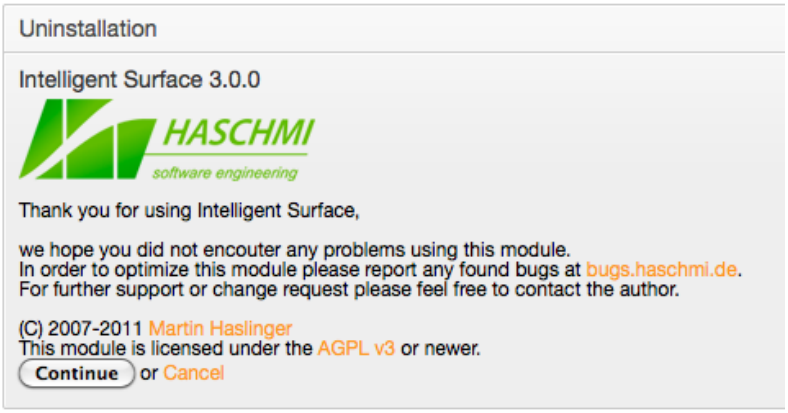


Figure 3.4.: IS3 Uninstallation dialog

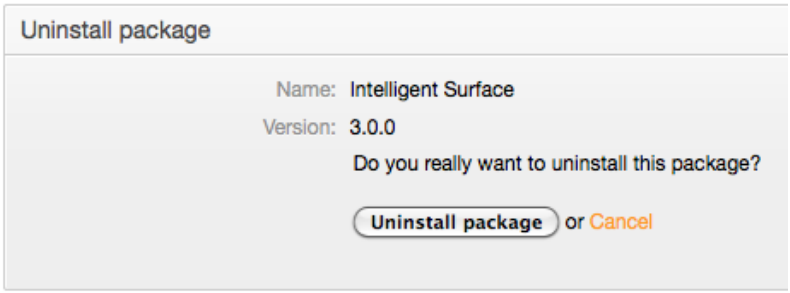


Figure 3.5.: OTRS Package Uninstall dialog

4. Settings

All settings for Intelligent Surface can be changed within the "Admin" module. To change any settings choose "SysConfig" within the "System Administration" block. In this view choose "IS" from the "Actions" frame.

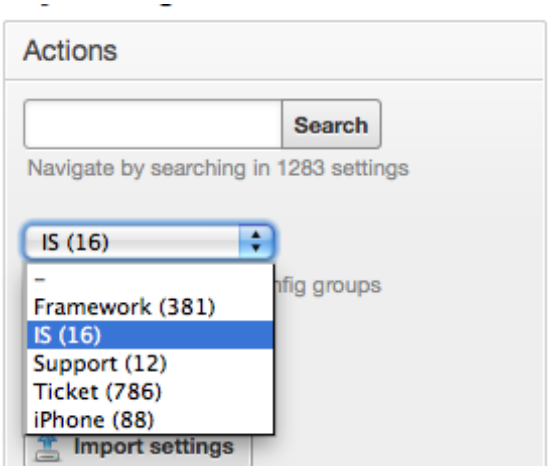


Figure 4.1.: OTRS SysConfig modules

On the right side you will see the configuration options for IS3:

- Core::Default - Configure IS core features
- Core::Ticket - Configure IS ticket data features
- Frontend::Agent::ModuleRegistration - Frontend configuration for agents
- Frontend::Customer::ModuleRegistration - Frontend configuration for customers
- Frontend::Public::ModuleRegistration - Frontend configuration for public OTRS access

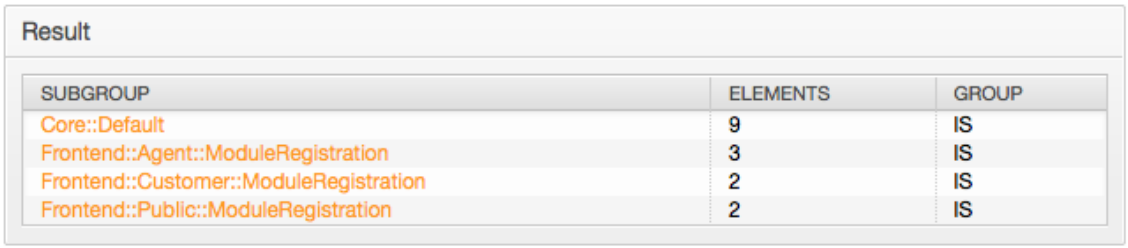
In the next sections the configuration of all core features are described. For the frontend configuration block standard scenarios are explained.

4.1. IS core features

Choose "Core::Default" to change any setting of the IS3 core features.

4.1.1. Mail questionnaire to customer (IS::Default::MailCustomer)

On choosing "Yes" all submitted questionnaires will be send as copy the the customer.
Default value: "No"



Result

SUBGROUP	ELEMENTS	GROUP
Core::Default	9	IS
Frontend::Agent::ModuleRegistration	3	IS
Frontend::Customer::ModuleRegistration	2	IS
Frontend::Public::ModuleRegistration	2	IS

Figure 4.2.: IS3 SysConfig options

4.1.2. Mail to customer subject - (IS::Default::MailCustomerSubject)

The provided text will be used as subject when emailing the questionnaire to the customer. This will only be used if IS::Default::MailCustomer is set to "Yes".

Default value: "Ihre Anfrage ist eingegangen"

4.1.3. Default states (IS::Default::DefaultState)

This text defines the default state selected in questionnaires. Beware that the text has to be equal to one of the states defined in your OTRS system.

Default value: "new"

4.1.4. Default priority (IS::Default::DefaultPriority)

Default priority selected in questionnaires. Beware that the provided text has to be equal to one of the defined priorities in your OTRS system.

Default value: "3 normal"

4.2. Agent frontend

Choose "Frontend::Agent::ModuleRegistration" to change the agent frontend.

4.2.1. Allow agents to administrate categories and questions

Usually only agents belonging to the "admin" group can edit the categories and questions. If you want additional users without admin rights being able to edit these you have to change the "NavBar Group" property of the "Frontend::Module###AdminIS" setting. For example create a group called "is_admin", add the user who shall administrate IS3 and change the "NavBar Group" setting to "is_admin", too.

WARNING: Users which shall administrate IS need rw privileges in any of the assigned groups.

4.2.2. Disabling the agent "Form" frontend

You might want to prevent the agents from accessing the questionnaires. To do so uncheck the checkboxes next to "Frontend::Module###PublicIS" and "Frontend::Module###AjaxIS".

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4.3. Customer frontend

Choose "Frontend::Customer::ModuleRegistration" to change the customer frontend.

4.3.1. Replace standard "New Ticket" button

It is possible to replace the standard "New Ticket" button in the customer interface by a button displaying the IS3 questionnaires. This will take two steps: renaming the IS3 Form button to "New Ticket" and disabling the standard button.

To rename the IS3 button change the property "NavBar Name" (subproperty Name of the NavBar property) of the "CustomerFrontend::Module###PublicIS" item from "IS" to "New Ticket". In order to place the IS button on the same position as the standard "New Ticket" button change "NavBar Priority" to "100" and "NavBar AccessKey" to "n".

Now the standard "New Ticket" button has to be disabled. Within SysConfig main page search for the "CustomerTicketMessage" item. The search will result in another block called "Frontend::Customer::ModuleRegistration" (customer frontend config of OTRS ticket module). Uncheck the checkbox next to "CustomerFrontend::Module###CustomerTicketMessage".

4.3.2. Disabling the customer frontend

To disable the questionnaires for customers uncheck the checkboxes next to "CustomerFrontend::Module###PublicIS" and "CustomerFrontend::Module###AjaxIS".

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5. Administration

In order to administrate the categories, questions and mappings of IS3 you need to be in the admin group of OTRS. You will see the "IS" group containing the items "Form", "Categories" and "Mappings".

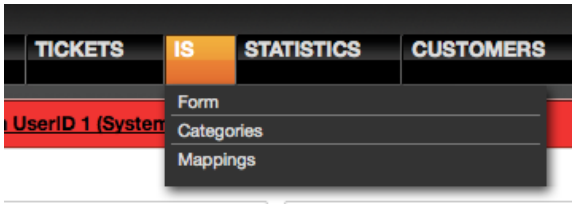

Figure 5.1.: OTRS main menu with IS group

Usually it is a good practice to layout a concept of your categories and questions on a piece of paper first. Afterwards you should copy this to IS starting with the categories going on with the questions and finally map your questions to freetext and freetime fields if required.

5.1. Categories

In order to edit the categorie please select "Categories" from the IS menu. You will then see a list of your current categories as well as the action "Add Category", "Global questions" and "Search question". The later two will be covered within the questions section.

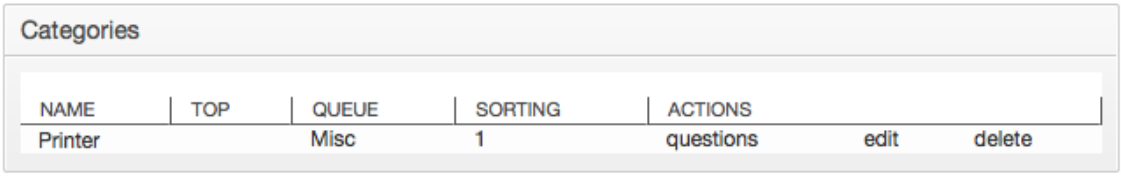

Figure 5.2.: IS categories

5.1.1. Add/edit category

To add a category please select the "Add Category" action. Categories consist of a name and a sorting. The sorting defines the order of appearance in the category selection combo box inside the form. Please take into account that the name is not unique. For each category you have to select a mapping queue inside you OTRS system. Optionally you can define the category to be a subcategory of another. The resulting form will not be shown to the user until he selected values for all requested subcategories. A sample for this could be "Proxy Server" and "Login Server" as subcategories to "Account request".

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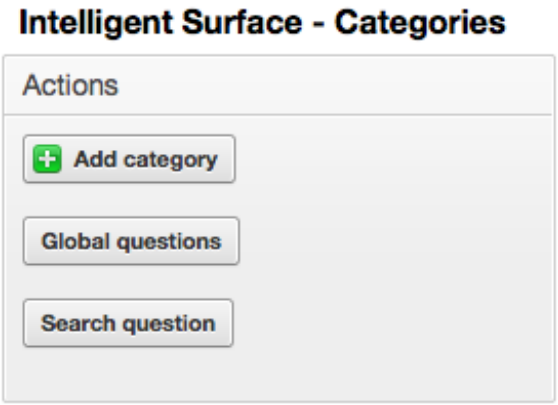

Figure 5.3.: IS category actions

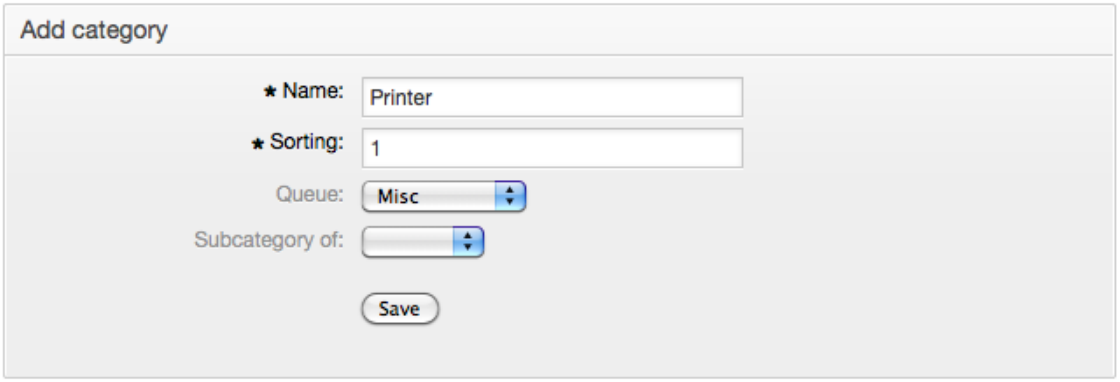

Figure 5.4.: Add a category

5.1.2. Delete category

The link "delete" next to a category in the overview will delete it. You will be asked if are you sure to delete the selected category.

WARNING: Deleting a category will also delete all contained questions! If the category you deleted had subcategories, these categories will now be subcategories of the top category of the one you just deleted.

5.2. Questions

The questions you will define are the key ingredients of the questionnaire you are creating. Each question will be either mapped to a category or be a global question. Category mapped questions can be created via the "questions" link next to each category in the listing. To create global questions please use the "Global questions" action. All of the other steps concerning question are identical. After selection you will see an overview of all your defined questions in this category or in global context.

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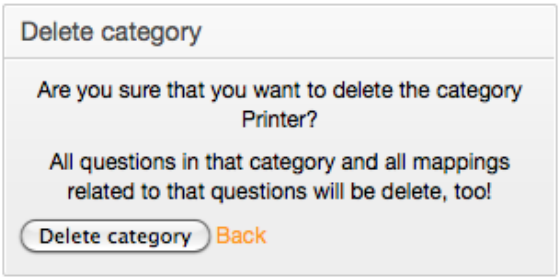

Figure 5.5.: Delete category

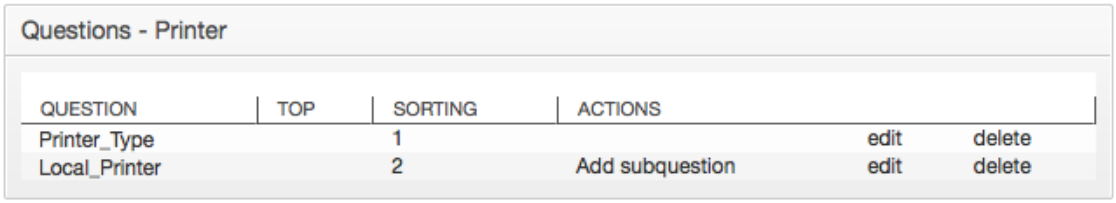

Figure 5.6.: Questions listing

5.2.1. Add/edit question

In order to add a new questions use the "Add question" action within your question overview. Any question consists of a mandatory name, text, sorting and type. The name of the question has to be unique within its category. It will currently be used in the created ticket next to the questions answer. The question field defines the text of the question and the optional help text can give the user additional hints. The sorting will define the ordering of the question in the resulting form. Beware that questions of the top categories will also be displayed. Therefore it is advisable to use bigger steps for sorting, e.g. 100-199 global questions, 200-299 building related questions. Topical blocks are usually easier to use then unsorted question orders. Each question can be optional or mandatory. The category and subquestion fields are not editable and predefined by the link you previously used. There are various question types you can use:

- yes/no - A simple yes/no question visualized by a checkbox. With every yes/no question you can define subquestions. Beware that the subquestions will only be shown if the checkbox is checked, so be aware to phrase your question the right way.
- Text - A single line text box for answering will be shown
- Textarea - A multi line text box for answering will be shown
- Choice - A dropdown with option values will be shown. You will have to define the options comma separated next to the type dropdown
- Date - A date chooser will be shown

If you have defined a yes/no question you will see an additional "Add subquestion" link next to the question which allows you to create the subquestions to this question. If subquestions exist you can no longer change the question type.

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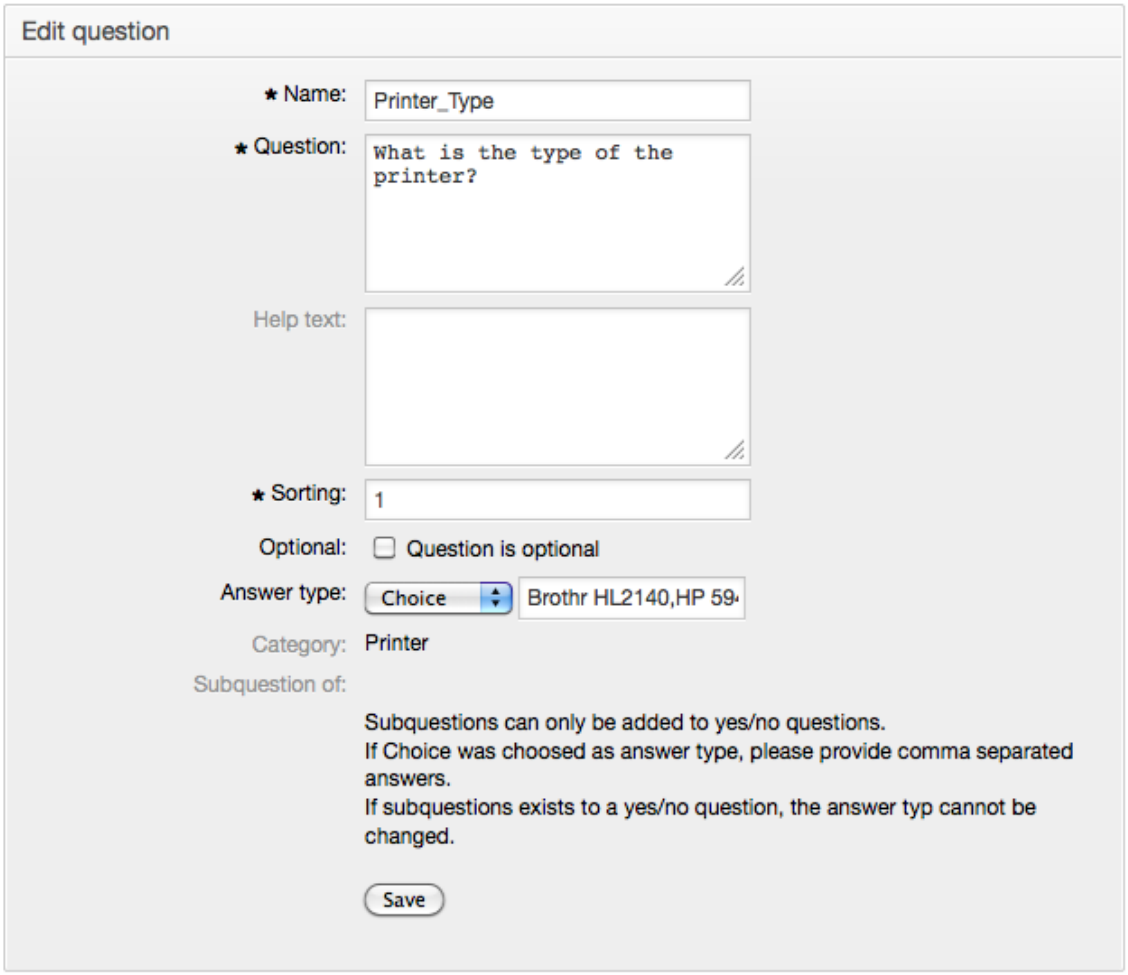

Figure 5.7.: Edit question

WARNING: IS will always try to prefill all questions with data available from the current users properties. That means choosing "UserPhone" as question name will automatically fill the answer box with the users phone number as initial value.

5.2.2. Delete question

You can delete any question by clicking the "delete" link next to it in the overview. You will be asked if you are sure to delete the selected question. If the questions has subquestions these will be subquestions of the deleted questions top question afterwards.

WARNING: All mapping assigned with the question will also be deleted.

5.2.3. Search question

As the catalog of your questions might increase with time you can search for specific questions. Please use the "Search question" action in the categories overview to do so. IS can search within

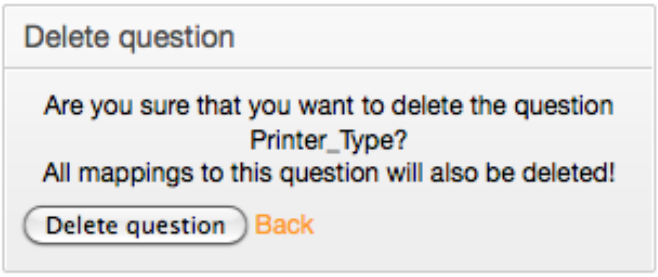

Figure 5.8.: delete question

question names and texts. By default IS will search for non-exact hits, to change this behavior please check "Show only exact hits". If you do not enter any values, all questions will be shown as result. The result view is similar to the standard questions listing but will additionally view the

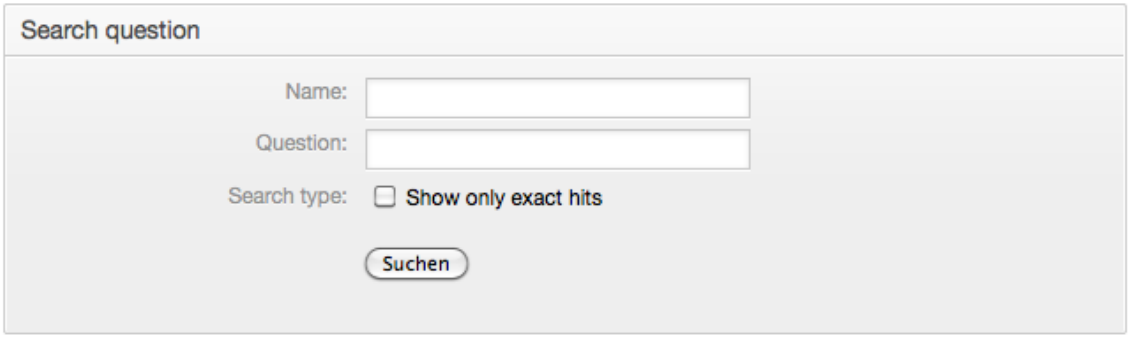

Figure 5.9.: Search questions

category of the question.

Figure 5.10.: Question search result

5.3. Mappings

Every question in IS can be mapped to a freetextfield or freetimefield or the ticket title in OTRS. These properties of the resulting tickets will automatically be set to the answers of the questions.

Mapping can be edited by choosing "Mapping" from the IS menu. You will be shown an overview of all existing mappings.

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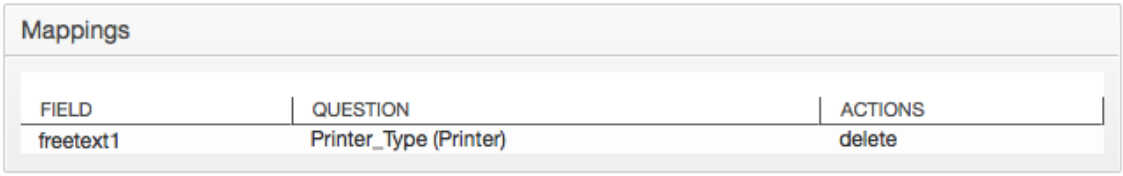

Figure 5.11.: Mappings overview

5.3.1. Add/edit mappings

Using the "Add mapping" action you can choose a target field for the mapping and the question to map in order to create a new mapping. As not all questions are always shown the target field can be used multiple times for mappings.

Editing an existing mapping will show the identical form.

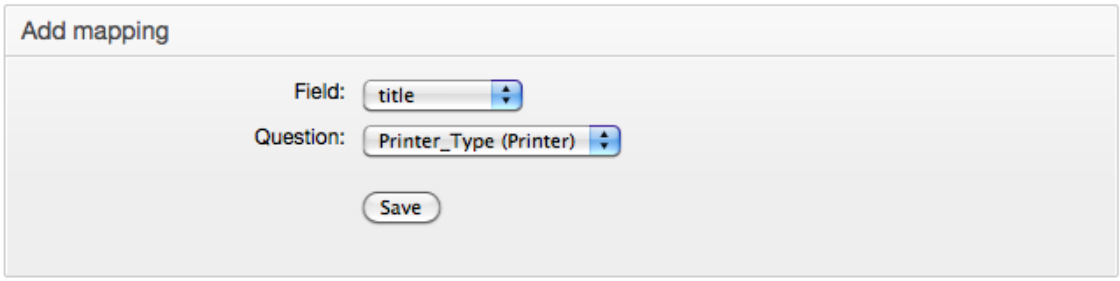

Figure 5.12.: Add mapping

5.3.2. Delete mapping

Using the "delete" link next to a mapping you can delete it. You will be asked if you are sure to do so.

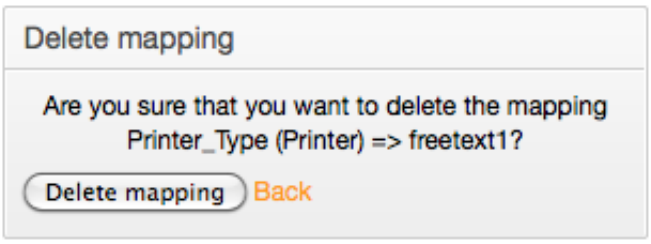

Figure 5.13.: Delete mapping

6. User interface

This chapter describes the usage of IS within the customer or public interface. A questionnaire with your previously defined categories and questions will be shown to your users.

6.1. Category selection

As a first step the user has to choose one of the categories and subcategories you have defined for your IS system. If subcategories exists the user will be requested to select one of these. After the category selection is finished the questions will be displayed within the questions block. All these steps do not require reloading the page as they use ajax technology.

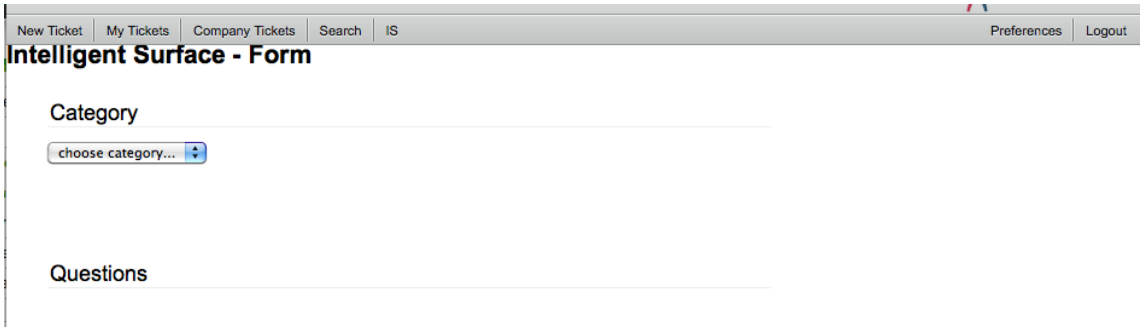

Figure 6.1.: IS Form - categories

6.2. Question block

After selecting the category and all requested subcategories the questions will be shown. All possible values are filled from the customer account data. These data are changeable in order to write tickets for third persons. Mandatory and optional questions can be easily distinguished as their visualization follows the standard OTRS user interface. Additionally to the defined questions the user can attach a file which might be useful for resolving the reported ticket.

6.3. IS form within agent interface

If you are viewing the IS form as agent it will embed into the agent view just like any other agent module. The user values will not be prefilled but are able the search for exising user by entering some letters into the name field. The found users will be shown below the name textbox. By clicking on one its data will be copied to the form and the search resuts removed.

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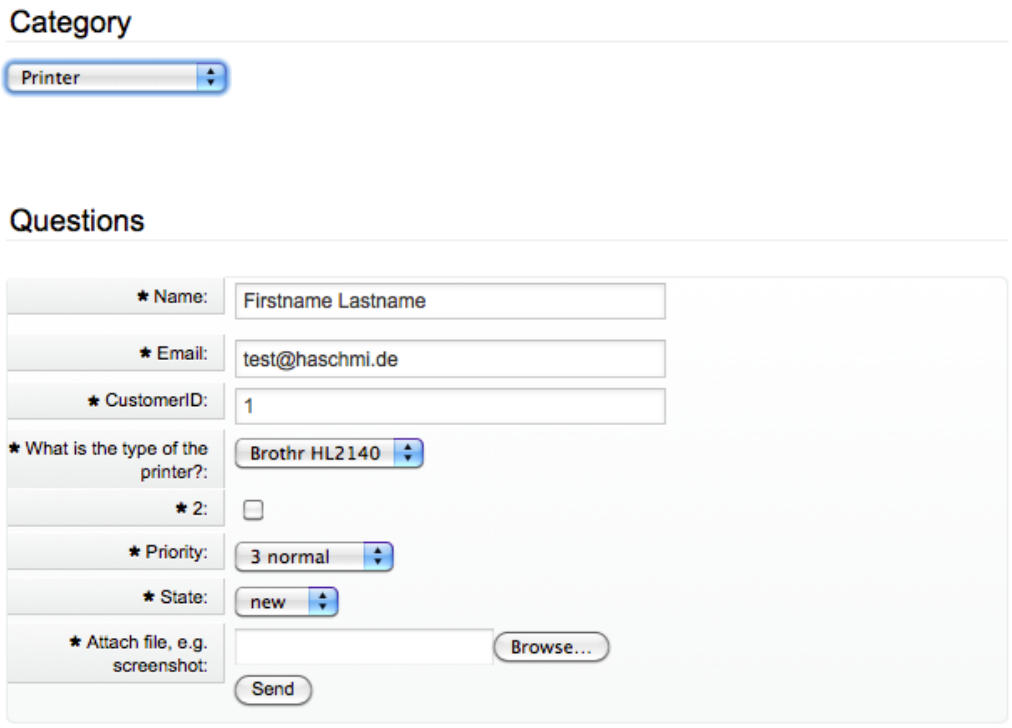

Figure 6.2.: IS Form - questions

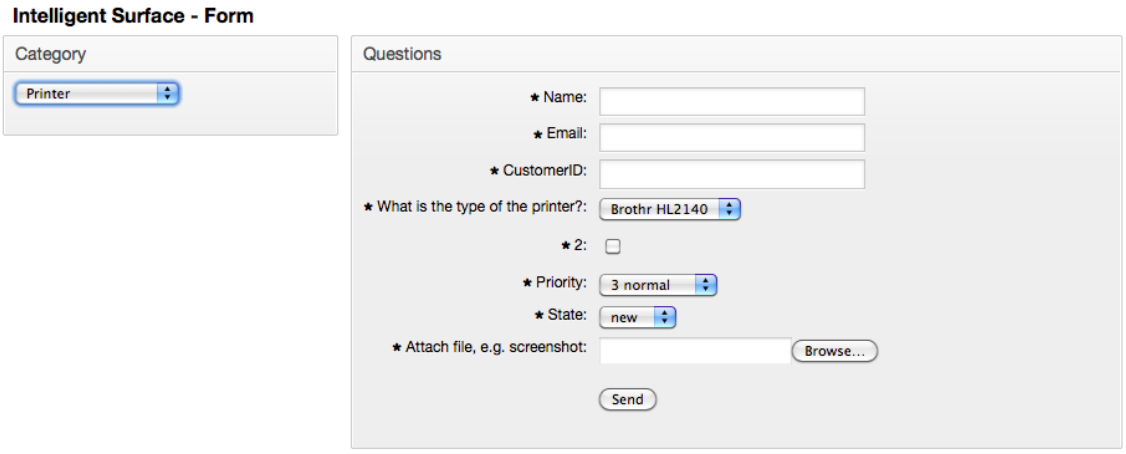

Figure 6.3.: IS Form - Agent interface

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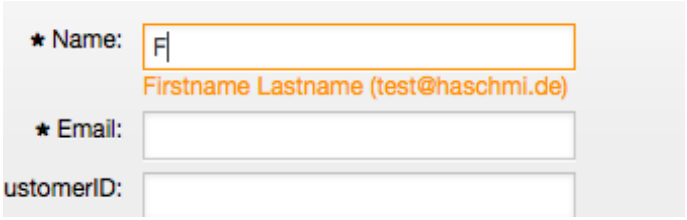

Figure 6.4.: IS Form - Agent user search

Appendix

A. Support

For any further support please contact the author at email@haschmi.de or visit http://www.haschmi.de We also offer installation, configuration and training on IS, priority feature development for IS, OTRS consulting and individual OTRS module development.

Bugs can be reported to https://bitbucket.org/haschmi/is3/issues

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List of Figures

3.1. OTRS Package Management 6
3.2. Intelligent Surface 3 - Installation welcome screen 7
3.3. Uninstall through Package Manager 7
3.4. IS3 Uninstallation dialog 8
3.5. OTRS Package Uninstall dialog 8

4.1. OTRS SysConfig modules 9
4.2. IS3 SysConfig options 10

5.1. OTRS main menu with IS group 12
5.2. IS categories 12
5.3. IS category actions 13
5.4. Add a category 13
5.5. Delete category 14
5.6. Questions listing 14
5.7. Edit question 15
5.8. delete question 16
5.9. Search questions 16
5.10. Question search result 16
5.11. Mappings overview 17
5.12. Add mapping 17
5.13. Delete mapping 17

6.1. IS Form - categories 18
6.2. IS Form - questions 19
6.3. IS Form - Agent interface 19
6.4. IS Form - Agent user search 20