

OTRS-Extensions KIX4OTRS for OTRS 5.0

c.a.p.e. IT® GmbH

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Imprint

Authors:

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1 General Remarks

1.1 Document Information

1.1.1 Purpose

This document describes the changes and extensions of KIX4OTRS. It is supposed to be a rough conception as well as a short administration documentation regarding these extensions.

1.1.2 Limitation

This document is not a complete documentation for the administration of OTRS. Please have a look at the public available documentation of OTRS under http://www.otrs.org. More information can be found in the OTRS-mailing lists as well as the OTRS-forum (http://forums.otrs.org) or the OTRS Community Boards website (http://www.otterhub.org).

1.1.3 Change History

Version	Date	Modified Section	Short Description	Change User
0.1.0	08/29/2011	Initial creation	Initial creation	Torsten Thau
0.1.1	08/31/2011	All	Continued completion	Martin Balzarek
1.0.0	09/26/2011	All	first version for KIX4OTRS-Release	Torsten Thau
1.0.1	10/14/2011		KIXSidebar module TicketInfo, added KIXSidebar to AgentTicketZoom	Rene Böhm
1.0.2	10/17/2011	12.1	CallMethod handling	Rene Böhm
1.0.3	10/20/2011		added Core.KIX4OTRS.js	Rene Böhm
1.0.4	10/25/2011	10.24	TicketInfo: queue link added	Dorothea Doerffel
1.0.5	10/27/2011	10.42	ticket filter extended	Dorothea Doerffel
1.0.6	11/14/2011	7.5 / 10.19 / 10.20	QuickTicketConfigurator added	Martin Balzarek
1.0.7	11/15/2011		Set values by CustomerPreferences	Frank Oberender
1.0.8	11/17/2011	10.68 / 10.38	Tab-layout changed, clickable links in merged tickets	Frank Oberender
1.0.9	11/23/2011	13.3	added admin tab in ConfigltemZoom	Stefan Mehlig
1.0.10	11/25/2011		Autocomplete instead using dropdown	Ralf Böhm
1.0.11	12/01/2011	10.23	TextModules modified	Rene Böhm
1.0.12	12/09/2011	Removed in KIX 4.2	Search for FreeTextFields modified	Rene Böhm
1.0.13	12/09/2011	10.1	FurtherColumns in DashboardTicketGeneric	Rene Böhm
1.0.14	12/19/2011	13.8	link object search with CI-class specific attributes	Torsten Thau
1.0.15	12/21/2011	7.4	group based customer backend access	Torsten Thau
1.0.16	01/02/2012	10.23	TextModules in Customer FollowUp	Dorothea Doerffel



		15 / 10.26 / 7.5 / 10.19 / 10.20	MenuModules changed, LinkedPerson handling, QuickTicket selection	Dorothea Doerffel
1.0.18	01/12/2012	7.5 / 10.19 / 10.20	QuickTicketConfiguration modified	Dorothea Doerffel
1.0.19	01/19/2012	13.9	Compare ConfigItem versions	Dorothea Doerffel
1.0.20	02/14/2012	13.3 / 13.6 / 14.1 / 14.2 / 14.3 / 14.4	TabLayout / KIXSIdebar in ChangeZoom and WorkOrderZoom	Dorothea Doerffel
1.0.21	02/31/2012	10.8	added ticket state workflow for multiple tickets (bulk action)	Torsten Thau
1.0.22	03/02/2012	Moved to separate package	extracted CIAdminModules	Stafan Mehlig
1.0.23	03/09/2012	13.1	configurable customer config item details	Stafan Mehlig
1.0.24	03/12/2012	10.23 / 10.25	TextModules handling modified	Rene Böhm
1.0.25	03/13/2012		added service extensions, owner and responsible name in ticketzoom	Stafan Mehlig
1.0.26	03/28/2012		added SLA extensions	Rene Böhm
1.1.0	05/09/2012	All	first version for KIX4OTRS 4.1 Release	Rene Böhm
1.1.1	08/10/2012	9.2	added document search optimizations	Rene Böhm
1.2.0	09/05/2012	All	first version for KIX4OTRS 4.2 Release	Rene Böhm
1.2.1	09/17/2012	8.3 / 8.4	sidebar width and sidebar module sort order	Dorothea Doerffel
1.2.2	09/17/2012	10.42 / 10.43	zip all attachments, delete selected article attachments	Ralf Böhm
1.2.3	09/26/2012	8.6	restricted dynamic fields	Dorothea Doerffel
1.2.4	10/16/2012	5.7	magnifier for customer details	Dorothea Doerffel
1.2.5	10/17/2012	10.37	integrated KIXCustomTicketListView	Dorothea Doerffel
1.2.6	11/03/2012	8.7	change field order for frontend modules	Dorothea Doerffel
1.2.7	11/05/2012	10.43	download selected article attachments from ticket	Ralf Böhm
1.2.8	11/05/2012	10.13 / 10.14 / 10.15 / 10.16 / 10.17	Ticket workflow	Dorothea Doerffel
1.2.9	11/13/2012	6.3	fulltext search modified	Dorothea Doerffel
1.2.10	11/14/2012	10.3 / 10.32	use search templates as dashlets, document link modified	Dorothea Doerffel
1.2.11	11/19/2012	8.7	customized sort order	Dorothea Doerffel
1.2.12	11/20/2012	7.8	Dynamic fields based on general catalog classes	Dorothea Doerffel
1.2.13	11/26/2012	7.9	clone customer or agent	Dorothea Doerffel
1.2.14	12/05/2012	8.6	restricted dynamic fields modified	Dorothea Doerffel
1.2.15	01/08/2013	10.63	article flags	Dorothea Doerffel
1.2.16	01/09/2013	10.17	added ticket state update	Dorothea Doerffel
1.2.17	01/10/2013	10.16	ExtendedFollowUp	Dorothea Doerffel
1.2.18	01/15/2013	10.5	Depending dynamic fields updated	Dorothea Doerffel
1.2.19	01/31/2013	8.5	customized popup size	Dorothea Doerffel



1.2.20	02/04/2013	13.9 / 8.8	new default skin, Compare CI-Versions changed	Dorothea Doerffel
1.2.21	02/14/2013	6.9	synchronisation of agent data	Dorothea Doerffel
1.2.22	02/19/2013	10.63 / 8.9	article flag handling changed, Action parameter for Core.AJAX.FormUpdate, flexible KIXSidebar module registration	Rene Böhm
1.2.23	02/20/2013	8.8	layout changed	Dorothea Doerffel
1.2.24	03/04/2013	8.9	generic sidebar registration	Dorothea Doerffel
1.2.25	03/07/2013	10.44	quick link	Dorothea Doerffel
1.2.26	03/19/2013	10.23 / 10.44	caching for TextModules, asynchronous loading of TextModules, quick link modified	Rene Böhm
1.2.27	03/21/2013	10.58 / 10.57	bulk action modified, autocomplete search in ticket merge	Dorothea Doerffel
1.2.28	03/22/2013	10.30	added KIXSidebar "ReuseArticleAttachments"	Rene Böhm
1.3.0	03/27/2012	All	first version for KIX4OTRS 4.3 Release	Rene Böhm
1.3.1	04/04/2013	10.69	added ACL to show and hide process information tab	Dorothea Doerffel
1.4.0	06/13/2012	All	first version for KIX4OTRS 5.0 Release	Rene Böhm
1.4.1	06/18/2013	10.67	customer information, save form content as draft	Dorothea Doerffel
1.4.2	06/20/2013	9.3	blacklist for AutoCreateLinkedPerson	Dorothea Doerffel
1.4.3	07/01/2013	8.10 / 7.10	state highlighting for linked tickets, dynamic field type CustomerUser	Dorothea Doerffel
1.4.4	07/02/2013	10.20	CustomerTicketMessageQuick removed	Dorothea Doerffel
1.4.5	07/03/2013	5.8 / 7.11 / 10.29	using ticket templates in postmaster filter, LinkedCls depending on deployment and incident state	Dorothea Doerffel
1.4.6	07/16/2013	8.11	dashboard ticket highlightning	Dorothea Doerffel
1.4.7	07/18/2013	13.10 / 13.11	ConfigItem overview modified	Dorothea Doerffel
1.4.8	07/22/2013	6.1	Search templated modified	Dorothea Doerffel
1.4.9	07/24/2013	10.6	ExcludedTicketData modified	Dorothea Doerffel
1.4.10	07/31/2013	10.70	define either to use realname or realname and email address in article tab	Dorothea Doerffel
1.4.11	08/05/2013	13.12	quick link in config item zoom	Dorothea Doerffel
1.4.12	08/05/2013	13.13	custom view for config item overview	Dorothea Doerffel
1.4.13	08/05/2013	10.37	column settings changed for ticket custom list view	Dorothea Doerffel
1.4.14	08/07/2013	13.4	changed CI-link-graph-visualization, now with jsPlumb (prototype)	Ricky Kaiser
1.4.15	08/07/2013	All	Old stuff removed	Dorothea Doerffel
1.4.16	08/07/2013	14.5	quick link in change and workorder zoom added	Dorothea Doerffel



1.4.17	08/13/2013	7.12	assign dynamic fields easily to frontend modules	Dorothea Doerffel
1.4.18	08/14/2013	13.16	CSV import with default values	Dorothea Doerffel
1.4.19	08/19/2013	13.14 / 13.15	create ticket out of CI overview / image tab for config item zoom	Dorothea Doerffel
1.4.20	08/22/2013	9.4	configurable inform type for linked persons	Dorothea Doerffel
1.4.21	08/27/2013	10.23	hierarchical text modules	Dorothea Doerffel
1.4.22	08/29/2013	5.9 / 10.39 / 8.12 / 5.7	config option Phone-/Email-TicketDisabled / article tree focus / added 8.12; added 5.7	Torsten Thau
1.4.23	09/11/2013	13.4	Added some new facts (bugfixes)	Ricky Kaiser
1.4.24	08/29/2013	14.4	show AccountedTime and PlannedEffort in WorkOrderInfo	Dorothea Doerffel
1.4.25	09/02/2013	10.72	KIXDashboardExtensions added	Dorothea Doerffel
1.4.26	10/07/2013	13.4	Added new SysConfig-entry	Ricky Kaiser
1.5.0	11/04/2013	10.72 / 10.1 / 10.3	Removed DashboardExtensions / CustomView / Further Columns	Dorothea Doerffel
1.5.1	02/04/2014	7.8 / 7.10 / 10.3 / 10.31 / 10.63 / 10.72 / 8.11 / 7.4 / 10.23 / 10.38 / 13.3 / 14.1 / 14.3	Changed SysConfig key for SearchTemplate / Backend registration for dynamic fields / changed TreeView to JSTree / important flag added / OutputFilter for merge link / State highlighting / old icons removed / tab registration changed / IE7 stuff removed	Dorothea Doerffel
1.5.2	02/04/2014	8.13	Overridable QData character limits	Rene Böhm
1.5.3	04/01/2014	10.17.1	Added more information	Rene Böhm
1.6.0	02/13/2014	7.5	XML upload and download for ticket templates	Dorothea Doerffel
1.6.1	02/18/2014	10.33 / 7.13	from and title separated in small view / async option for AJAX ContentUpdate and FormUpdate	Dorothea Doerffel
1.6.2	02/19/2014	10.21	translate replacings for OTRS-tags	Dorothea Doerffel
1.6.3	02/13/2014	10.71	acl actions for ticket tabs	Dorothea Doerffel
1.6.4	03/04/2014	10.33 / 10.63	possibility to view article flags in ticket overview lists	Dorothea Doerffel
1.6.5	03/13/2014	10.28 / 8.14 / 10.8	show responsible and owner detail info in ticket info sidebar / customized columns for linked objects / ticket state workflow registration extended	Dorothea Doerffel
1.6.6	03/25/2014	10.27	customer info sidebar should show all ticket and article contacts	Dorothea Doerffel
1.6.7	04/04/2014	13.4	name-link of CI-node now opens the graph tab and shows the graph with clicked CI as start-CI, link for CI-zoom is now in context-menu	Ricky Kaiser
1.6.8	05/05/2014	10.33	sysconfig key Ticket::Frontend::OverviewSmall# ##ColumnEscalationTime removed	Dorothea Doerffel
1.6.9	05/05/2014	10.17	state change after webrequest for pending tickets	Dorothea Doerffel



1.6.10	05/06/2014	10.41	use article flags in article filter	Dorothea Doerffel
1.6.11	05/07/2014	10.38 / 10.63 / 10.63	show date and from in attachment tab / show article flags in article zoom / css styles for article flags	Dorothea Doerffel
1.6.12	05/13/2014	10.73	remove article flags on ticket close	Dorothea Doerffel
1.6.13	05/19/2014	10.19 / 10.20	take ticket template handling out of AgentTicketPhone, AgentTicketEmail and CustomerTicketMessage and move it to base module	Dorothea Doerffel
1.6.14	05/22/2014	7.5 / 6.2 / 10.32	distinction whether empty or not set value in ticket templates / move ticket search extensions to separate file	Dorothea Doerffel
1.6.15	06/10/2014	6.1	search profile auto-subscribe	Dorothea Doerffel
1.6.16	06/16/2014	8.1	replace smart date option with output filter	Dorothea Doerffel
1.6.17	06/17/2014	7.5	choose user groups for ticket templates	Dorothea Doerffel
1.6.18	06/19/2014	10.9	service assigned queue for all frontend modules / change queue if service assigned queue defined	Dorothea Doerffel
1.6.19	06/23/2014	10.74	New event "TicketMergeTarget"	Rene Böhm
1.6.20	06/23/2014	15.1	MasterSlave functionality for bulk action	Dorothea Doerffel
1.6.21	07/16/2014	13.17	search in all config item classes	Dorothea Doerffel
1.6.22	07/17/2014	10.63	added AgentTicketArticleFlagView	Rene Böhm
1.6.23	07/22/2014	10.5 / 10.38	depending dymanic fields for object reference and general catalog / fixed table header in article zoom	Dorothea Doerffel
1.6.24	07/24/2014	8.15	queue link in dashboard ticket lists	Dorothea Doerffel
1.6.25	07/24/2014	17	added chapter 17	Rene Böhm
1.6.26	07/24/2014	13.18	access attribute for config items	Dorothea Doerffel
1.6.27	07/29/2014	10.27	Extended descriptions and file list	Rene Böhm
1.6.28	07/30/2014	10.41	show and filter dynamic fields in article zoom	Dorothea Doerffel
1.6.29	07/31/2014	10.75	dynamic field edit and show sidebar	Dorothea Doerffel
1.6.30	08/14/2014	9.1	show merged tickets in linked objects table	Dorothea Doerffel
1.6.31	08/19/2014	10.29	extended functionality for linked config items sidebar	Dorothea Doerffel
1.6.32	08/22/2014	10.5 / 6.10	set depending dynamic field trees invalid / extended functionality for search profile toolbar, added config item and FAQ search profiles	Dorothea Doerffel
1.6.33	08/25/2014	10.78	user defined target identifier using link object link in phone or email	Dorothea Doerffel
1.6.34	08/26/2014	10.76	customer search result for print could be opened in new tab	Dorothea Doerffel



1.6.35	08/27/2014	10.38 / 13.3 / 14.1 / 14.3	customized sort order for linked objects table	Dorothea Doerffel
1.6.36	08/29/2014	10.77	show pending time as remaining time or as point of time	Dorothea Doerffel
1.7.0	02/17/2015	6.8	Dashboard FAQ module removed	Rene Böhm
1.7.1	03/05/2015	8.16	User Preference for use article colors added	Dorothea Doerffel
1.7.2	03/06/2015	10.x	Expand and collaps all sidebars	Dorothea Doerffel
1.7.3	03/17/2015	6.10 / 7.12 / 8.5 / 10.67 / 10.76	Changed some output filters from post to pre	Dorothea Doerffel
1.7.4	03/17/2015	5.9.1.1	Added new file	Rene Böhm
1.7.5	03/17/2015	8.1	smart date outputfilter removed and old content added again	Dorothea Doerffel
1.7.6	04/17/2015	8.13	outputfilter added for OverrideQDataDisplayLimits	Dorothea Doerffel
1.7.7	04/13/2015	5.9	Obsolete customer dashboard modules removed	Dorothea Doerffel
1.7.8	07/15/2015	8.7.1.1	Removed AgentTicketMove.tt	Rene Böhm
1.8.0	07/17/2015	6.3 / 8.17 / 9.3 / 10.60 / 10.63.2 / 10.65 / 10.80 / 10.82 / 16	DFs in Fulltext search / Closable Notify-Messages / Linked Persons sidebar / Added article type edit and optimized description / Article Flag restrictions / Recipient Type / activated toolbar modules	Rene Böhm
1.8.1	09/24/2015	10.81	Sidebar Checklist added	Dorothea Doerffel
1.8.2	09/24/2015	8.18 / 5.9	added pager to "Linked CIs" dashlet in CIC / Online Help Link / Service View / two values for QueueView / Pager for LinkedCIDashlet in CIC	Rene Böhm
1.8.3	08/10/2015	5.9 / 7.5	CIC dashlets added (remote DB, search template, calendar, further information) / fixed values in ticket templates	Dorothea Doerffel
1.8.4	10/21/2015	8.5 / 8.6 / 10.8 / 10.18 / 10.23	KIXSidebar-SysConfig keys / CustomizeForm-Sidebar / TicketStateWorkflow SysConfig keys completed	Dorothea Doerffel
1.8.5	10/22/2015	10.69	TicketType translation	Rene Boehm
1.8.6	11/24/2015	10.81	Extended and changed SysConfig options	Rene Boehm
1.9.0	12/23/2015	10.2 / 13.18	14-day-stats adapted / ci group access example added	Dorothea Doerffel
1.9.1	01/19/2016	6.5.1.1	Updated file list	Rene Boehm
1.9.2	01/22/2016	10.8	Changed SysConfig Key for TicketStateWorkflowExtension	Dorothea Doerffel
1.9.3	02/24/2016	10.11	Explanation of EscalationDelay adapted	Dorothea Doerffel
1.9.4	03/01/2016	13.18	Description for GroupAccess of config items adapted	Dorothea Doerffel
1.9.5	03/18/2016	8.6	Show and hide dynamic fields via ACL editor	Dorothea Doerffel



1.9.5	08/30/2016	10.69	Removed double content	Dorothea Doerffel
1.9.6	12/03/2016	10.8.1.1	Updated file list	Rene Böhm
1.9.6	12/06/2016	10.9 / 10.43	Updated file list and information	Rene Böhm

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2 Requirements and Recommendations

2.1 Requirements

- OTRS 4.0.x, Version >= 4.0.13
- Corresponding OTRS-extension package KIXCore >= 4.0.0
- The user which installs the package
 - Needs write permissions on <OTRS HOME>/Kernel/Config.pm
 - Needs write permissions on <OTRS HOME>/scripts/apache2-perl-startup.pl
 - Must be able to create directories and files in <OTRS_HOME>

2.2 Recommendations

- If the SysConfig change tracking feature is used, the Perl Module "Data::Compare" should be installed
 - See your operating system distribution or CPAN
 - Check your system configuration with <OTRS_HOME>/bin/kix.CheckModules.pl



3 Installation and Upgrading

3.1 Installation KIX4OTRS

This section is relevant if you already have an OTRS 4.0.x running and just want to install KIX4OTRS.

- (1) Install and configure your OTRS preferably from source package
- (2) Install KIXCore

```
sudo -u <OTRS_USER> ./bin/otrs.PackageManager.pl -a
install -p /path/to/KIXCore-4.0.0.opm
```

 Check if your apache2-perl startup script contains following (light yellow marked) lines

Check if your Kernel/Config.pm contains following (light yellow marked) lines

(3) Delete OTRS cache and rebuild config

```
sudo -u <OTRS_USER> ./bin/otrs.DeleteCache.pl
sudo -u <OTRS_USER> ./bin/otrs.RebuildConfig.pl
```

- (4) Restart your webserver and check if OTRS is running
- (5) Install KIX4OTRS
 - sudo -u <OTRS_USER> ./bin/otrs.PackageManager.pl -a
 install -p /path/to/KIX4OTRS-7.1.0.opm
 - Check if your apache2-perl startup script contains following (light yellow marked) lines^{Note}

```
...
use ModPerl::Util;
# set otrs lib path!
```

Note: depending on the installation status of your OTRS::ITSM extensions not all of these line are required, e.g. /opt/otrs/KIX4OTRSITSMIncidentProblem is only required if OTRS-extension ITSMIncidentProblemManagement is installed



```
use lib "/opt/otrs/";
            use lib "/opt/otrs/Kernel/cpan-lib";
            use lib "/opt/otrs/Custom";
            #----- KIX tsunami framework -----
            # CustomPackageLibs ~#
            use lib "/opt/otrs/KIXCore";
            use lib "/opt/otrs/KIX4OTRS";
            use lib "/opt/otrs/KIX4OTRSITSMCore";
            use lib "/opt/otrs/KIX4OTRSITSMConfigManagement";
            use lib "/opt/otrs/KIX4OTRSITSMIncidentProblem";
            # EO CustomPackageLibs ~#
            #----- EO KIX tsunami framework -----
            # pull in things we will use in most requests so it [...]
            Check if your Kernel/Config.pm contains following (light yellow
            marked) lines<sup>Note</sup>
            use Kernel::Config::Defaults;
            push (@ISA, 'Kernel::Config::Defaults');
            #----- KIX tsunami framework -----
            use File::Basename;
             use FindBin qw($Bin);
            # CustomPackageLibs ~#
            use lib "/opt/otrs/KIXCore";
            use lib "/opt/otrs/KIX40TRS";
            use lib "/opt/otrs/KIX4OTRSITSMCore";
            use lib "/opt/otrs/KIX4OTRSITSMConfigManagement";
            use lib "/opt/otrs/KIX4OTRSITSMIncidentProblem";
            # EO CustomPackageLibs ~#
            #----- EO KIX tsunami framework -----
(6) Delete OTRS cache and rebuild config
           sudo -u <OTRS_USER> ./bin/otrs.DeleteCache.pl
sudo -u <OTRS_USER> ./bin/otrs.RebuildConfig.pl
(7) Restart your webserver and check if OTRS with KIX4OTRS is running
```

3.2 Upgrading from OTRS::CiCS 3.x to KIX4OTRS 7.x

This section is relevant if OTRS::CiCS is already installed on your OTRS 2.4.x and you intent to upgrade to OTRS 4.0.x with KIX4OTRS.

- (1) Upgrade your OTRS to OTRS 4.0.x as describted in the file UPGRADING
- (2) If OTRS::ITSM is used, upgrade or install your OTRS::ITSM packages.
- (3) Install KIX4OTRS and check the installation hint in 3.1
- (4) If you use a special extension package(CompanyExtensions) bases on OTRS::CICS uninstall OTRS::CiCS and upgrade this special extension package.

Note: depending on the installation status of your OTRS::ITSM extensions not all of these lines are required, e.g. /opt/otrs/KIX4OTRSITSMIncidentProblem is only required if OTRS extension ITSMIncidentProblemManagement is installed



4 Extended Custom Folders - KIXCore

This chapter describes a separate package that is a required OTRS-extension before *KIX4OTRS* can be installed. It continues the idea of the OTRS-CiCS approach which modified Perl's internal variable @INC.

The package *KIXCore* provides a more flexible and more general approach for extensions of extensions than the common "Custom"-folder of OTRS itself. KIXCore (as the custom folder itself) is the continued development of the previous tsunami approach to extend other OTRS-extensions. By employing "use lib" instead of "unshift @INC", it provides more stability and reduced complexity. Therefore each extension requires a modification of Kernel/Config.pm and apache2-perl startup scripts (e.g. scripts/apache2-perl-startup.pl). This can be done automatically by KIXUtils::RegisterCustomPackage. Each time a new custom folder is registered a backup of the modified file Config.pm and apache2-perl startup script with a timestamp suffix is written.

You can use a command line tool (<OTRS_HOME>/bin/otrs.ManageMultipleCustomPackages.pl) to list custom folders, register or unregister a custom folder but actually this should be done by the package installation process.

IMPORTANT: if you're using mod-perl a webserver restart is required after the modification of apache2-perl startup script. Otherwise, no further custom packages in your custom modification will be found. Using a function of your custom extension upon installation (type "post") will NOT work, since @INC does not contain your custom directory yet. In order to use custom functions immediately on installation you need to install the extension via command line.

The common folder "Custom" allows to overwrite an existing file of an already installed package once. If you installed another extension, you would encounter the same problem as if you had no "Custom" folder. This drawback is resolved with KIXCore. Furthermore the common Custom-folder of OTRS does not affect following files/items (yet). By extending the custom-folder approach it is possible to easily dis- and enable whole OTRS-extensions by un-/registering the corresponding custom folder.

- dtl-Templates
- Kernel::Language
 - Contains modifications to (re-)place translation files by custom packages
- Kernel::System::LinkObject
 - Required modification since module searches LinkObject backends not based on @INC but on hard coded file paths should be fixed in future OTRS releases
- Kernel::System::SysConfig
 - Contains modifications to place XML-configuration files in custom folders
- Kernel::System::Stats
 - Contains modifications to place and access static and dynamic stats in custom folders



5 Customer User Extensions

5.1 Customer Events

• In default OTRS, changes in customer user attributes or preferences will not trigger an event handler.

5.1.1 Implementation

 Extension of the customer user backend module to trigger events whenever a relevant action (CustomerUserAdd, CustomerUserUpdate, CustomerUserSetPassword, CustomerUserSetPreferences) was successfully completed.

5.1.1.1 Related Structures

- a Filelist
 - KIX40TRS/Kernel/System/CustomerUser.pm

5.1.2 SysConfig Options

Key Name	Description
n.a.	n.a.

5.2 Multiple CustomerIDs

- If a customer user has multiple customer IDs assigned, the ticket is always generated with his/her primary customer ID
- Customer user must be able to choose for which customer ID he/she wants to create the ticket
- The assignment of multiple customer IDs in the agents frontend is done by a text field which contains comma separated all customer IDs
 - There should be a chance to select values from a multiple selection list if customer company support is enabled

5.2.1 Implementation

- Use of a pre-application module in customer frontend to check if customer user has multiple customer IDs assigned
 - Allow customer user to select relevant customer ID before ticket creation mask is shown
- Allow agents to select relevant customer ID in ticket creation mask
 - Shown as a list in customer details
- Display multiple selection for UserCustomerIDs if customer company support is enabled in admin's frontend

5.2.1.1 Related Structures

- a Filelist
 - $\bullet \verb| KIX4OTRS/Kernel/Config/Files/KIX4OTRS_CustomerActions.xml|\\$
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS Ticket.xml
 - KIX40TRS/Kernel/Modules/AdminCustomerUser.pm
 - KIX40TRS/Kernel/Modules/CustomerTicketCustomerIDSelection.pm
 - KIX4OTRS/Kernel/Modules/CustomerTicketMessage.pm
 - KIX4OTRS/Kernel/Output/HTML/CustomerUserCustomerIDs.pm
 - KIX4OTRS/Kernel/Output/HTML/LayoutKIX4OTRS.pm
 - $\bullet \quad \texttt{KIX4OTRS/Kernel/Output/HTML/Standard/CustomerAssignedCustomerIDsList.tt}\\$
 - KIX4OTRS/Kernel/Output/HTML/Standard/CustomerTicketCustomerIDSelection.tt



- KIX4OTRS/Kernel/Output/HTML/Standard/CustomerTicketMessage.tt
- var/httpd/htdocs/js/Core.KIX4OTRS.CustomerIDsSelection.js

5.2.2 SysConfig Options

Key Name	Description
CustomerFrontend::Module### CustomerTicketCustomerIDSelection	The frontend module which allows selection of currently relevant customer is for customer users.
CustomerPanelPreApplicationModule### CustomerTicketCustomerIDSelection	The pre-application module which checks for multiple customer ids in customer frontend before showing CustomerTicketMessage
CustomerCompanySupportPersonalCustom erID	Enables customer company support for primary customer ID to be used as the existing option CustomerCompanySupport
Frontend::CustomerUser::Item### 98-CustomerIDsSelection	A customer info block, which shows all customer IDs assigned to this customer. Depending on the calling action it allows you to select the relevant customer ID for the ticket, which will be created.
Loader::Agent::CommonJS### 120-KIX4OTRSCustomerIDsSelection	Registration for needed JS-functions to show all customer lds assigned to this customer.
	The attribute UserCustomerIDs must be configured as array:
	Map => [
	#
	['UserCustomerIDs', 'CustomerIDs', 'cust_ids', 1, 0, 'array', '', 1],
	#
],

5.3 Use of Customer User Attributes as Type ARRAY

 Currently in OTRS there is no possibility to use attributes of type array for customer users

5.3.1 Implementation

- · Extensions of admin's customer user frontend
 - Display comma-separated attributes as multiple selections
 - For DB-backends: Save attributes of type array as comma-separated string

5.3.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Modules/AdminCustomer.pm

5.3.2 SysConfig Options

Key Name	Description
	The attribute UserAttrName must be configured as array:
	Map => [
	#
	['UserAttrName', 'AttrNameShown', 'ADAttrNameOrDBColumn', 1, 0, 'array', '', 1],
	#
	l,
	The attribute UserAttrName must be configured as SelectionsMultiple:
	SelectionsMultiple => {
	UserAttrName => {
	ABC => 'abc',
	DEF => 'def',
	EGH => 'egh',



Key Name	Description
	},
	},

5.4 Use of Default Values for Customer User Attributes

• Currently in OTRS there is no possibility to define a default value for customer user attributes, which are not explicitly defined for this customer user.

5.4.1 Implementation

Extension of customer user backends to handle default values

5.4.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/System/CustomerUser/DB.pm
 - KIX4OTRS/Kernel/System/CustomerUser/LDAP.pm

5.4.2 SysConfig Options

Key Name	Description
	The attribute UserAttrName must be extended:
	Map => [
	# var, frontend, storage, shown, required, storage-type, http-link, readonly, Dummy-value
	['UserAttrName', 'AttrNameShown', 'ADAttrNameOrDBColumn', 1, 0, 'array', '', 1, 'DefaultValue'],
	#
],

5.5 Further Search Fields as Parameters in CustomerSearch

• In default OTRS, it is only possible to define search fields, which will use all configured customer user search fields. This implies that there is no possibility to define search fields, which should use a specially configured customer user attribute only.

5.5.1 Implementation

• Extension of customer user backends to handle further search fields (which can be used as general search parameters or in new ticket masks)

5.5.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/System/CustomerUser/DB.pm
 - KIX4OTRS/Kernel/System/CustomerUser/LDAP.pm

5.5.2 SysConfig Options

Key Name	Description
	The further search fields have to be defined for :
	CustomerUserFurtherSearchFields => {
	UserCustomerID => 'customer_id, customer_ids',
	UserLogin => 'login',

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Key Name	Description
	},

5.6 Map LDAP Group Memberships to Attributes

- Customer attributes should be set from LDAP-group membership without setting them as attribute values within the LDAP
- Currently in OTRS there is no assignment of LDAP-groups for customer users

5.6.1 Implementation

- Extension of the customer attribute retrieval (sub CustomerUserDataGet) for LDAP-group membership check
- If user is member of the LDAP-group the customer user attribute is set to a predefined keys
- · Extension of configuration parameters required

5.6.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/System/CusomerUser/LDAP.pm
 - Kernel/Config.pm

5.6.2 SysConfig Options

Key Name	Description
GroupMemberSyncAccessAttr	LDAP-attribute to filter for membership of users
GroupMemberSyncUserAttr	LDAP-attribute to filter for group members ("UID" or "DN")
GroupMemberSyncAttributes	Hash to map group membership to customer user attributes, for example: cn=keyuser,cn=groups,dc=example,dc=com' => { UserKeyUser' => "yes", }, cn=customerclass_a,cn=groups,dc=example,dc=com' => { UserCustomerClass' => "A", }, The source field in the CustomerUser map must be empty, for example: Map => [# ['UserComment', 'Comment', 'desc', 1, 0, 'var', '', 0], / # the following attribute is set by LDAP-group: ['UserKeyUser', 'Key User', '', 1, 0, 'var', '', 0], #],

5.7 Support LDAP-Array Attributes

- common LDAP-backend for customer user data does not support array
- array-attributes may be used as a joined string in a single customer user attribute or (if known how many entries the array has) as single customer user attributes where each customer user attribute contains exactly one array entry

5.7.1 Implementation

 extend customer user LDAP backend to support storage types "ArrayIndex" and "ArrayJoin" (join pattern/string is configurable)



5.7.1.1 Related Structures

a Filelist

- KIX4OTRS/Kernel/System/CusomerUser/LDAP.pm
- Kernel/Config.pm

5.7.2 SysConfig Options

Key Name	Description
\$Self->{CustomerUser}->{Map}	 Following configuration joins all array elements to one customer user attribute, using a comma as delimiter: ['ObjectClassStrg', 'ObjectClassJOIN', 'objectClass', 1, 0, 'ArrayJoin[,]'],
	 Following configuration extracts the first array value and assigns it to a specific customer user attribute ['UserAttributeX', 'AttributeX', 'objectClass', 1, 0, 'ArrayIndex[0]'],
	 Following configuration extracts the third array value and assigns it to a specific customer user attribute ['UserAttributeZ', 'AttributeZ', 'objectClass', 1, 0, 'ArrayIndex[2]'],

5.8 Customer Info Block

- Information shown in customer user info block do not contain number of all tickets
- Counts in customer info block are based on customer's CustomerID. This is not useful in every situation and should be configurable.
- Since KIX4OTRS provides linked persons, customer info block should show the number of tickets linked to current selected customer
- additional information about this customer should be shown after clicking on the magnifier in the top right corner

5.8.1 Implementation

- Extended layout module to generate counts of customer's tickets.
 - New SysConfig-option to set used search base.
 - New method to count tickets that are linked to current customer user
 - Magifier used as icon

5.8.1.1 Related Structures

a Filelist

- KIX4OTRS/Kernel/Config/Files/KIX4OTRS Ticket.xml
- KIX4OTRS/Kernel/Output/HTML/CustomerUserGenericTicket.pm
- KIX4OTRS/Kernel/System/Ticket/TicketExtensionsKIX4OTRS.pm
- KIX4OTRS/Kernel/Output/HTML/Standard/AgentKIXSidebarCustomerInfo.tt
- KIX4OTRS/Kernel/Output/HTML/KIXSidebarCustomerInfo.pm
- KIX4OTRS/Kernel/Output/HTML/LayoutKIX4OTRS.pm

5.8.2 SysConfig Options

Key Name	Description
Frontend::CustomerUser:: CustomerInfoTicketCount	Sets the search parameter for the ticket count in customer info block.
Frontend::CustomerUser::Item### 10-AllTickets	Customer item (icon), which shows all tickets of this customer as info block.
Frontend::CustomerUser::Item### 11-OpenLinkedTickets	Customer item (icon), which shows all tickets that are of ticket state type and linked to this customer as info block.
Frontend::CustomerUser::Item### 12-AllLinkedTickets	Customer item (icon), which shows all tickets that are linked to this customer as info block.



5.9 Customer Information Center Adaptions

- OTRS Customer Information Center provides the possibility to display customer company information depending on selected CustomerLogin or selected CustomerID. KIX4OTRS Customer Information Center was extended by displaying customer user information too.
- Information to the currently selected customer user or customer company is displayed in dashlets as known from the ticket dashboard
- "Create New Phone Ticket" and "Create New Email Ticket" links are always shown new dashboard configuration options for disabling one or both have been added
- · Following dashlets are currently available
 - Customer Services
 - Shows services assigned to the selected customer user
 - Customer Company / User List
 - Shows information about open and closed tickets, shows links to ticket creation masks which will already contain the user's information upon display and links to customer frontend if accessible
 - Customer User Info / Customer Company Info
 - Shows information about the customer user or customer company like telefon number, address, etc
 - Customer ConfigItem
 - · Shows assigned config items

5.9.1 Implementation

 CustomerUserDashboard modules work similar to one from the ticket dashboard

5.9.1.1 Related Structures

Filelist

- KIX4OTRS/Config/Files/KIX4OTRS CustomerDashboard.xml
- KIX4OTRS/Modules/AgentCustomerInformationCenter.pm
- KIX4OTRS/Modules/AgentCustomerInformationCenterSearch.pm
- KIX40TRS/Output/HTML/DashboardCustomerInfo.pm
- KIX4OTRS/Output/HTML/DashboardCustomerUserList.pm
- KIX4OTRS/Output/HTML/DashboardTicketGeneric.pm
- KIX40TRS/Output/HTML/Standard/AgentDashboardCommon.tt
- KIX40TRS/Output/HTML/Standard/AgentDashboardCustomerInfo.tt
- KIX4OTRS/Output/HTML/Standard/AgentDashboardCustomerUserList.tt
- KIX4OTRS/System/CustomerUser/DB.pm
- KIX4OTRS/System/CustomerUser/LDAP.pm
- KIX4OTRSITSMConfigManagement/Kernel/Config/Files/KIX4OTRS ConfigItemLink.xml
- KIX4OTRSITSMConfigManagement/Kernel/Output/HTML/CustomerDashboardLinkedCIs.p
 m
- KIX4OTRSITSMConfigManagement/Kernel/Output/HTML/LayoutKIX4OTRSITSMConfigManagement.pm
- KIX4OTRSITSMConfigManagement/Kernel/Output/HTML/Standard/CustomerDashboardLinkedCis.tt
- $\bullet \quad \texttt{KIX40TRSITSMConfigManagement/var/.../css/../KIX40TRS.ITSM.Agent.Detail.css}$
- var/.../js/Core.Agent.CustomerInformationCenterSearch.js

5.9.2 SysConfig Options

Key Name	Description
AgentCustomerInformationCenter::Backend ###0500-CIC-CustomerInfo	Parameters for the customer dashboard backend to show information about the selected customer user
	new options
	 PhoneTicketDisabled – define and set to true value if link should be disabled

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Key Name	Description
	 EmailTicketDisabled – define and set to true value if link should be disabled
CustomerDashboardBackend### 0140-CustomerServices	Parameters for the customer dashboard backend to show all assigned services for the selected customer.
CustomerDashboardConfigItemLink::ShownA ttributes	Defines which attributes are shown in customer table.
CustomerDashboardConfigItemLink::KIXSide barLinkedClsParams	Common Parameters for the KIXSidebarLinkedCls <u>backend</u> .
CustomerDashboardConfigItemLink::ClSearc hlnClasses	Defines in which CI-classes (keys) which attributes need to match the search pattern (values, comma separated if more than one attribute should be searched). For use with sub-attributes try this, key: attribute::sub-attribute, value: owner
CustomerDashboardBackend### 0250-TicketStats	Parameters for the customer dashboard backend of the ticket stats of the agent interface. "Limit" is the number of entries shown by default. "Group" is used to restrict the access to the plugin (e. g. Group: admin;group1;group2;). "Default" determines if the plugin is enabled by default or if the user needs to enable it manually. "CacheTTLLocal" is the cache time in minutes for the plugin.
AgentCustomerInformationCenter::Backend ###0150-CIC-LinkedCIs	Parameters for the customer dashboard backend to show all assigned config items for the selected customer or customer company.
CustomerDashboardBackend### 0251-TicketStats2Weeks	Parameters for the customer dashboard backend of the 2 weeks ticket stats of the agent interface. "Limit" is the number of entries shown by default. "Group" is used to restrict the access to the plugin (e. g. Group: admin;group1;group2;). "Default" determines if the plugin is enabled by default or if the user needs to enable it manually. "CacheTTLLocal" is the cache time in minutes for the plugin.
CustomerDashboardBackend### 0252-TicketStats1Month	Parameters for the customer dashboard backend of the monthly ticket stats of the agent interface. "Limit" is the number of entries shown by default. "Group" is used to restrict the access to the plugin (e. g. Group: admin;group1;group2;). "Default" determines if the plugin is enabled by default or if the user needs to enable it manually. "CacheTTLLocal" is the cache time in minutes for the plugin.
CustomerDashboardBackend### 0260-TicketCalendar	Parameters for the customer dashboard backend of the ticket calendar of the agent interface. "Limit" is the number of entries shown by default. "Group" is used to restrict the access to the plugin (e. g. Group: admin;group1;group2;). "Default" determines if the plugin is enabled by default or if the user needs to enable it manually. "CacheTTLLocal" is the cache time in minutes for the plugin.
CustomerDashboardConfigItemLink::CIExclu deDeploymentStates	Defines the excluded deployment states for the customer information center
CustomerDashboardConfigItemLink::CIExclu deIncidentStates	Defines the excluded incident states for the customer information center
AgentCustomerInformationCenter::Backend ###0260-CIC-TicketCalendar	Parameters for the customer dashboard backend of the ticket calendar. "Limit" is the number of entries shown by default. "Group" is used to restrict the access to the plugin (e. g. Group: admin;group1;group2;). "Default" determines if the plugin is enabled by default or if the user needs to enable it manually. "CacheTTLLocal" is the cache time in minutes for the plugin.
AgentCustomerInformationCenter::Backend ###07<14>0-CIC-RemoteDBList00<03>	Parameters for the customer dashboard backend remote DB dashlet. SysConfig Keys: Module: Kernel::Output::HTML::CustomerDashboardRemoteD

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Key Name	Description	
	В	
	Title: Customer Tickets	
	Description Shows customer ticket	
	• Prio: 0540	
	Identifier: RemoteDBList001	
	Group	
	DatabaseCacheTTL:	
	DatabaseDSN:DBI:Pg:dbname=otrs;host=localhost	
	DatabasePW: otrs	
	DatabaseTable: ticket	
	DatabaseType:	
	DatabaseUser: otrs	
	DatabaseCaseSensitive:	
	MaxResultCount: 30	
	MaxResultDisplay: 10	
	MaxResultSize:	
	QueryDelay: 1000	
	QueryMinLength: 1	
	RestrictedDBAttributeCustomerLogin:	
	customer_user_id	
	RestrictedDBAttributeCustomerUserID: customer_id	
	RestrictedOTRSObjects: Configuration	
	RestrictedOTRSAttributes: 1	
	RestrictedDBAttributes: responsible_user_id	
	RestrictedMandatory: 0	
	IdentifierAttribute: id	
	ShowAttributes: tn,title	
	ShowAttributesHead: TN,Title	
	TicketLink: 1	
	Permission: ro	
	Block: ContentLarge	
	• Limit: 6	
	• Group:	
	Default: 1	
	CacheTTL: 2	
	SearchAttribute: tn	
Frontend::Module###CustomerDashboardR emoteDBAJAXHandler	Frontend module registration for the agent interface.	
AgentCustomerInformationCenter::Backend ###0270-CIC-FurtherInformation	Parameters for the customer dashboard backend to provide and save further information for customer user or customer company. "Group" is used to restrict the access to the plugin (e. g. Group: admin;group1;group2;). "RwGroup" is used to restrict the writing access to the plugin. "Default" determines if the plugin is enabled by default or if the user needs to enable it manually. "CacheTTLLocal" is the cache time in minutes for the plugin.	
Frontend::Module###CustomerDashboardFurtherInformationAJAXHandler	Frontend module registration for the agent interface.	

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5.10 Group Based Customer Data Backend Access

- the access to customer user data backends schould be limited based on groups which can be assigned to customer data backends
- if an agent, does not have access to customer user data from a certain backend no customer information will be shown while looking at one of this customers tickets or when creating a new ticket

5.10.1 Implementation

- the Kernel module CustomerUser completely ignores customer data backend if the requesting user has no RO-permission on at least on of the configured access groups
- during the run of the constructur method (Kernel::System::CustomerUser::new) each configued data backend is checked for configuration attribute "AccessGroups", if UserID has no RO-membership the data backend is not added to the \$Self-Hash → backend is not available in any other method

5.10.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/MSystem/CustomerUser.pm
 - Kernel/Config.pm

5.10.2 SysConfia Options

Key Name	Description
AccessGroups	Array attribute which contains group names to which an agent must have RO-permission in order to retrieve information from the customer data backend, for example:
	\$Self->{CustomerUser} = {
	Name => 'Database Backend',
	Module => 'Kernel::System::CustomerUser::DB',
	[]
	AccessGroups => ['users', 'admin'],
	Map => [
	# note: Login, Email and CustomerID needed!
	#
],
	};



6 Agent User Extensions

6.1 Search Template Sharing

- Agents should be able to share their search templates with other agents.
- Templates could be shared by adding them to categories. Agents could subscribe to a template or copy it. Subscribed templates change if the owner changes his template. Templates could be subscribed or copied using the agent preferences.

6.1.1 Implementation

- Create new table "kix_search_profile" containing subscribed or copied templates information
- Extended agent's ticket search to share search templates
 - Extended agent's ticket search mask to be able to share search templates and to allocate them to a category
- Extended agent's preferences to subscribe to templates or to copy them
 - create a new preferences option: search template catagories as dropdown and after selecting one of the dropdown option show search templates for this category as a multiple selection
 - possibility to copy or subscribe
 - get categories out of the new table

6.1.1.1 Related Structures

a Filelist

- KIX4OTRS/Kernel/KIX4OTRS PreferencesExtensions.xml
- KIX40TRS/Kernel/Language/de KIX40TRS.pm
- KIX40TRS/Kernel/Modules/AgentTicketSearch.pm
- $\bullet \quad \texttt{KIX4OTRS/Kernel/Modules/SearchprofilePreferencesAJAXHandler.pm}$
- KIX40TRS/Kernel/Output/HTML/Standard/AgentTicketSearch.tt
- $\bullet \verb| KIX40TRS/Kernel/Output/HTML/Standard/AgentPreferences.tt|\\$
- KIX4OTRS/Kernel/Output/HTML/PreferencesSearchProfile.pm
- KIX40TRS/Kernel/System/SearchProfile.pm
- KIX40TRS/var/httpd/htdocs/css/Agent/default/KIX40TRS.Default.css
- var/httpd/htdocs/js/Core.Agent.Search.js

6.1.2 SysConfig Options

Key Name	Description
PreferencesGroups###SearchProfile	Agent preferences for subscribing and copying search templates
Frontend::Module###SearchprofilePreferencesAJAXHandler	Module registration for search templates AJAX handler

6.2 Search Options for Pending and Escalation Times

- In default OTRS, there are no search options for ticket pending and ticket escalation times.
- It should be possible to use them equivalent to other ticket times (e.g. ticket create and close times)

6.2.1 Implementation

 Extended agent's ticket search to provide search options for pending and escalation times



- Extended agent's ticket search mask to be able to use new search options
- Extended AgentTicketSearch to handle new search options

6.2.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS TicketActions.xml
 - KIX40TRS/Kernel/Language/de KIX40TRS.pm
 - KIX40TRS/Kernel/Modules/AgentTicketSearch.pm
 - KIX4OTRS/Kernel/Output/HTML/Standard/AgentTicketSearch.tt
 - KIX40TRS/Kernel/System/Ticket/TicketSearch.pm

6.2.2 SysConfig Options

Key Name	Description
Ticket::Frontend::AgentTicketSearch### Defaults###TicketPendingTimeSlot	Dis-/enables pending times as a default shown ticket search attribute for ticket search screen
Ticket::Frontend::AgentTicketSearch### Defaults###TicketPendingTimePoint	Dis-/enables pending times as a default shown ticket search attribute for ticket search screen
Ticket::Frontend::AgentTicketSearch### Defaults###TicketEscalationTimePoint	Dis-/enables escalation times as a default shown ticket search attribute for ticket search screen
Ticket::Frontend::AgentTicketSearch### Defaults###TicketEscalationTimeSlot	Dis-/enables escalation times as a default shown ticket search attribute for ticket search screen

6.3 Search for Ticket Numbers and DFs in Fulltext Search

- In default OTRS, there is no pssibility to search for ticket numbers in fulltext search if this ticket number does not appear in subject or body of an article or the title of a ticket
- additionally it's not possible to do a fulltext search in Dynamic Fields
- It should be possible to search for ticket numbers too

6.3.1 Implementation

- Extended agent's ticket search to provide search options for ticket numbers and special configured DFs using fulltext search
- additionally searching for Ticket Numbers including the TicketHook is possible

6.3.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS_TicketOverview.xml
 - KIX40TRS/Kernel/Modules/AgentTicketSearch.pm

6.3.2 SysConfig Options

Key Name	Description
extSearchInDynamicFields	List of Dynamic Fields which should be used in a Fulltext search as well. At the moment only fields of type "text" and "textarea" are supported. Possible settings: $0 = Disabled$, $1 = Use$ in Fulltext search.

6.4 Redirect Target after Ticket Close

- Whenever a ticket gets closed, the acting agent user will be redirect to last used screen overview.
- It should be possible to get redirected to this ticket again.

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6.4.1 Implementation

- Additional agent preference to set preferred redirect target after ticket has been closed
- Extended agent's ticket processing modules to handle redirect target

6.4.1.1 Related Structures

- a Filelist
 - KIX40TRS/Kernel/Config/Files/KIX40TRS Ticket.xml
 - KIX40TRS/Kernel/Language/de_KIX40TRS.pm
 - KIX4OTRS/Kernel/Modules/AgentTicketActionCommon.pm
 - KIX40TRS/Kernel/Modules/AgentTicketCompose.pm
 - KIX40TRS/Kernel/Modules/AgentTicketForward.pm
 - KIX4OTRS/Kernel/Modules/AgentTicketPhoneOutbound.pm
 - KIX4OTRS/Kernel/Modules/AgentTicketZoomTabActionCommon.pm

6.4.2 SysConfig Options

Key Name	Description
PreferencesGroups###RedirectAfterTicketCl ose	Defines which page is shown after a ticket has been closed.

6.5 Notification Forwarding in Agents Absence

- During the agent's absence notifications sent to this agent are (temporarily) lost
- It should be possible to define a substitute user/contact

6.5.1 Implementation

- Additional agent preference which is only visible if agent is currently out of office
- All notification emails send to an out of office agent are also send to his/her substitute contact – triggered by a ticket event
- It's possible to configure an additional text to tell the substitute why he/she receives this message

6.5.1.1 Related Structures

- a Filelist
 - $\bullet \verb| KIX40TRS/Kernel/Config/Files/KIX40TRS_PreferencesExtensions.xml|\\$
 - KIX4OTRS/Kernel/Language/de_KIX4OTRS.pm
 - KIX4OTRS/Kernel/Output/HTML/PreferencesOutOfOfficeSubstitute.pm
 - KIX40TRS/Kernel/Output/HTML/Standard/AdminUser.tt
 - $\bullet \quad \texttt{KIX4OTRS/Kernel/Output/HTML/Standard/AgentPreferences.tt}$
 - $\bullet \quad \texttt{KIX4OTRS/Kernel/System/Ticket/Event/NotificationEvent/Transport/Email.pm}$
 - KIX4OTRS/Kernel/System/Ticket/Event/NotificationToOutOfOfficeSubstitute.pm
 - KIX4OTRS/Kernel/System/Ticket/TicketExtensionsKIX4OTRS.pm

6.5.2 SysConfig Options

Key Name	Description
PreferencesGroups###OutOfOfficeSubstitut e	Registration for the agent preference plugin
Ticket::EventModulePost### 900-NotificationToOutOfOfficeSubstitute	Dis/enabled the out-of-office-substitute message sending

6.6 Textarea for Agents Preferences

- Agents preferences cannot consist of a multiple line input
- It should be possible to define multiple lines, e.g. as an individually used

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signature

6.6.1 Implementation

Extended agent preferences to provide textareas for multiple lines inputs.

6.6.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS PreferencesExtensions.xml
 - KIX40TRS/Kernel/Output/HTML/Standard/AgentPreferences.tt

6.6.2 SysConfig Options

Key Name	Description
	Registration of an exemplary agent's preference, to allow multiple lines input and be shown in the preferences view.

6.7 Multiple Selections For Agents Preferences

- Agents preferences cannot consist of a multiple selection
- It should be possible to define preferences as multiple selections

6.7.1 Implementation

- New agent preferences module to provide multiple selections
 - Shows multiple selections
 - Saves selected values as a comma-separated agents preference

6.7.1.1 Related Structures

- a Filelist
 - KIX40TRS/Kernel/Config/Files/KIX40TRS PreferencesExtensions.xml
 - KIX4OTRS/Kernel/Output/HTML/PreferencesGenericMultiple.pm
 - KIX4OTRS/Kernel/Output/HTML/Standard/AgentPreferences.tt

6.7.2 SysConfig Options

Key Name	Description
	Registration of an exemplary agent's preference, to allow multiple selections and be shown in the preferences view.

6.8 Dashboard FAQ

- Show (1) most recent and (2) top 10 FAQ items
- · Requires OTRS-extension FAQ to be installed

6.8.1 Implementation

Common dashboard module with corresponding FAQ methods

6.8.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS_DashboardExtensions.xml
 - KIX4OTRS/Kernel/Output/HTML/Standard/AgentDashboardFAQ.tt
 - KIX4OTRS/Kernel/Kernel/Output/HTML/DashboardFAQ.pm

6.8.2 SysConfig Options

Key Name	Description
DashboardBackend###0199-FAQ	Parameters for the dashboard FAQ News. "Group" are used to restricted access to the plugin (e. g. Group:

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Key Name	Description
	admin;group1;group2;). "Default" means if the plugin is enabled per default.

Synchronize Agent Data 6.9

- In default OTRS there could be synchronized only this data: UserID UserFirstname UserLastname UserLogin ValidID UserID ChangeUserID UserEmail (e.g. from LDAP)
- it should be possible to synchronize additional agent attributes

6.9.1 **Implementation**

Additional attributes were stored in user preferences

6.9.1.1 Related Structures

- a Filelist
 - KIX40TRS/Kernel/System/User.pm

6.9.2 SysConfig Options

Key Name	Description
n.a.	n.a.

6.10 Search Profile Toolbar Extensions

Extended search profile toolbar to show also other search profiles like config item search profiles, FAQ search profiles and other

6.10.1**Implementation**

- · Outputfilter to replace action and javascript

6.10.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS Toolbar.xml
 - KIX4OTRS/Kernel/Modules/ToolbarSearchProfileAJAXHandler.pm
 - KIX4OTRS/Kernel/Output/OutputFilterToolbarSearchProfile.pm
 - KIX4OTRS/Kernel/Output/ToolBarTicketSearchProfile.pm
 - KIX4OTRS/Kernel/System/SearchProfile.pm
 - KIX40TRS/var/httpd/htdocs/skins/Agent/default/KIX40TRS.Header.css
 - $\verb|KIX40TRSITSMConfigItem/Kernel/Modules/AgentITSMConfigItemSearch.pm|\\$

6.10.2 SysConfig Options

Key Name	Description
Frontend::Module###ToolbarSearchProfileAJAXHandler	module registration
lem:contend::output::FilterElementPre###ToolbarSearchProfile	defines Outputfilter

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7 Administrative Extensions

7.1 SysConfig Change Log

 Changes in SysConfig are not logged, it's impossible to track who did what change when

7.1.1 Implementation

- Functionality requires additional Perl package setup
 - Data::Compare
 - Check your system configuration with <OTRS_HOME>/bin/kix.CheckModules.pl
- Functionality based on KIXCore, which provides Event handling for SysConfig
 - Event handler is called if a change in SysConfig is detected

7.1.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS_SysConfigChangeLog.xml
 - KIX4OTRS/Kernel/System/SysConfig/Event/LogSysConfigChanges.pm
 - KIX4OTRS/Kernel/System/SysConfig/SysConfigChangeLog.pm
 - KIX4OTRS/Kernel/System/SysConfigChangeLog/File.pm
 - KIX4OTRS/Kernel/System/SysConfigChangeLog/SysLog.pm

7.1.2 SysConfig Options

Key Name	Description
SysConfig::EventModulePost### 000-LogSysConfigChanges	Registration for the SysConfig event handler
SysConfigChangeLog::LogModule	Log module for the SysConfig. "File" writes all messages in a given logfile, "SysLog" uses the syslog daemon of the system, e.g. syslogd.
SysConfigChangeLog::LogModule::SysLog::Facility	If "SysLog" was selected for LogModule, you can specify a special log facility.
SysConfigChangeLog::LogModule::SysLog::LogSock	If "SysLog" was selected for LogModule, you can specify a special log sock (on solaris you may need to use 'stream').
SysConfigChangeLog::LogModule::SysLog::Chars et	If "SysLog" was selected for LogModule, you can specify the charset that should be used for logging.
SysConfigChangeLog::LogModule::LogFile	If "file" was selected for LogModule, you have to specify a logfile. The file will be created by the system, if it doesn't exist.
SysConfigChangeLog::LogModule::LogFile::Date	Set this config parameter to "Yes", if you want to add a suffix with the current year and month to the SysConfig logfile. A logfile for every month will be created.

7.2 Statistics Extensions

- If you're using a static report module, In default OTRS, the mask for report creation does not support all possible params for selection lists (e.g. to dis-/enable translation) and does not know params of type:
 - Date,
 - String,
 - Hidden.



7.2.1 Implementation

Modify agent's mask "AgentStats"

7.2.1.1 Related Structures

- a Filelist
 - KIS40TRS/Kernel/Modules/AgentStats.pm
 - KIS4OTRS/Kernel/Output/HTML/Standard/AgentStatsOverview.tt

7.2.2 SysConfig Options

Key Name	Description
n.a.	n.a.

7.3 Filter for SLA and Services

• In default OTRS, all existing SLAs and services will be shown in the relevant admin interface. This is not very comfortable, especially when there is a high number of SLAs or services defined.

7.3.1 Implementation

- Integrated a filter to reduce the number of shown SLAs and services depending on variable search input
 - Extended admin's SLA template to support filtering
 - Extended admin's Service template to support filtering

7.3.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Modules/AdminSLA.pm
 - KIX4OTRS/Kernel/Output/HTML/Standard/AdminService.tt
 - KIX4OTRS/Kernel/Output/HTML/Standard/AdminSLA.tt

7.3.2 SysConfig Options

Key Name	Description
n.a.	n.a.

7.4 Switch Button Agent ↔ Customer Frontend

- Allow agents which do have a customer user account (with the same login) to easily switch from agent frontend to customer frontend without entering login data and vice versa
- May be restricted to agents with corresponding group membership

7.4.1 Implementation

- Use of output filter that checks if it's used in customer or agent frontend
 - Agent frontend:
 - Check if customer user with same login name exists
 - Check if agent has RO-permissions on group "SwitchButton"
 - Replace logout link by switch icon and logout icon
 - Customer frontend:
 - Check if agent user with same login name exists
 - Check if agent user's got RO-permission on "SwitchButton" group
 - Replace logout button by switch button and logout button
- Frontend module checks login data, creates a new session on the corresponding frontend and redirects to the default page after login of this frontend



7.4.1.1 Related Structures

a Filelist

- KIX4OTRS/Kernel/Config/Files/KIX4OTRS SwitchButton.xml
- KIX40TRS/Kernel/Modules/SwitchButton.pm
- KIX4OTRS/Kernel/Output/HTML/OutputFilterSwitchButton.pm
- KIX4OTRS/Kernel/Language/de_SwitchButton.pm
- var/httpd/htdocs/skins/Agent/KIX4OTRS/css/Core.Header.css
- var/packagesetup/KIX40TRS.pm

7.4.2 SysConfig Options

Key Name	Description
CustomerFrontend::Module###SwitchButton	Registration of frontend module to create a session on the agent frontend
Frontend::Module###SwitchButton	Registration of frontend module to create a session on the customer frontend
Frontend::Output::FilterElementPre###SwitchButton	Output-filter to display/show switch button link in customer and agent frontend

7.5 Ticket Template Configurator

- · Separate admin area to manage ticket templates
 - Add, edit and remove ticket templates
 - Migrate old ticket templates from SysConfig-Keys to database
 - XML up- and download for ticket templates
 - distinction whether values are empty set or not set
 - distinction whether values should be fixed or not
 - choose user groups for ticket template access

7.5.1 Implementation

- New core module for ticket templates
- Expand database by two new tables
- New admin management frontend module for creating, viewing, listing, editing migrating, up- and downloading ticket templates

7.5.1.1 Related Structures

- a Filelist
- KIX4OTRS/Config/Files/KIX4OTRS QuickTicketAdmin.xml
- KIX4OTRS/Language/de KIX4OTRSTemplateConfigurator.pm
- KIX4OTRS/Modules/AdminQuickTicketConfigurator.pm
- KIX4OTRS/Config/Files/KIX4OTRS_QuickTicketAdmin.xml
- $\bullet \quad \texttt{KIX4OTRS/Language/de_KIX4OTRSTemplateConfigurator.pm}\\$
- KIX4OTRS/Modules/AgentTicketEmail.pm
- KIX4OTRS/Modules/AgentTicketPhone.pm
- KIX4OTRS/Modules/CustomerTicketMessage.pm
- KIX40TRS/Modules/CustomerTicketMessageQuickSelection.pm
- KIX40TRS/Output/HTML/Standard/CustomerTicketMessageQuickSelection.tt
- KIX4OTRS/Output/HTML/Standard/AdminQuickTicketConfigurator.tt
- KIX4OTRS/System/Ticket/TicketTemplateHandler.pm
- $\bullet \quad \texttt{KIX4OTRSITSMConfigManagement/Modules/CustomerTicketMessage.pm}$
- KIX4OTRSITSMIncidentProblem/Modules/AgentTicketEmail.pm
- KIX4OTRSITSMIncidentProblem/Modules/AgentTicketPhone.pm
- var/httpd/htdocs/js/Core.Admin.QuickTicketConfigurator.js
- var/httpd/htdocs/skins/Agent/default/KIX4OTRS/css/Core.AdminQuickTicketConfigurator.css
- var/httpd/htdocs/skins/Customer/KIX4OTRS/css/Core.Control.css
- var/packagesetup/KIX4OTRS.pm
- KIX40TRS.sopm
- KIX4OTRS/Output/HTML/Standard/AdminQuickTicketConfigurator.tt



b Table/Table Columns

- kix_ticket_template
 - id
 - ° name
 - ° f_agent
 - ° f_customer
 - ° valid_id
 - o create_time
 - o create by
 - o change time
 - o change by
- kix_ticket_template_preferences
 - ° template_id
 - o preferences_key
 - o preferences_value

7.5.2 SysConfig Options

Key Name	Description
Frontend::Module###AdminQuickTicketConfigurat or	Frontend module registration for the AdminQuickTicketConfigurator in the admin interface.
Ticket::Frontend::AdminQuickTicketConfigurator## #ArticleType	Determines the possible article types for ticket templates.
Ticket::Frontend::AdminQuickTicketConfigurator## #ArticleSenderType	Determines the possible article sender types for ticket templates.
Ticket::Frontend::AdminQuickTicketConfigurator## #LinkType	.Determines the possible link types for ticket templates.
Ticket::Frontend::AdminQuickTicketConfigurator## #LinkDirection	.Determines the possible link directions for ticket templates.
Ticket::Frontend::AdminQuickTicketConfigurator## #StateType	.Determines the possible ticket states for ticket templates.
Ticket::Frontend::AdminQuickTicketConfigurator## #DynamicField	Dynamic field options shown in the ticket template configurator of the admin interface. Possible settings: 0 = Disabled, 1 = Enabled, 2 = Enabled and required.
Ticket::Frontend::AdminQuickTicketConfigurator## #TicketFreeTime	Ticket free time options shown in the ticket template configurator of the admin interface. Possible settings: 0 = Disabled, 1 = Enabled, 2 = Enabled and required.
Frontend::AdminQuickTicketConfigurator::KIXSideb arBackend###0100-CustomerInfo	Parameters for the KIXSidebar <u>backend</u> CustomerInfo.
Frontend::AdminQuickTicketConfigurator::KIXSideb arBackend###0200-TextModules	Parameters for the KIXSidebar <u>backend</u> TextModules.
Ticket::Frontend::AdminQuickTicketConfigurator## #MigrateButton	Enables or disable the migrate button in <u>admin</u> <u>frontend</u> interface.

7.6 Dashboard KIXNotify

Show KIX related news - similar to OTRS news

7.6.1 Implementation

 Retrieve package information from c.a.p.e. IT's package repository¹ and display message if installed packages should be updates

7.6.1.1 Related Structures

- a Filelist
 - KIX40TRS/Kernel/Config/Files/KIX40TRS DashboardExtensions.xml

1 http://www.cape-it.de/cgi-bin/download.pl/modules.xml

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- KIX4OTRS/Kernel/Output/HTML/Standard/AgentDashboardKIXNotify.tt
- KIX4OTRS/Kernel/Kernel/Output/HTML/DashboardKIXNotify.pm

7.6.2 SysConfig Options

Key Name	Description
DashboardBackend###0000-KIXNotify	Parameters for the dashboard backend. "Group" are used to restricted access to the plugin (e. g. Group: admin;group1;group2;). "Default" means if the plugin is enabled per default or if the user needs to enable it manually. "CacheTTLLocal" means the cache time in minutes for the plugin.

7.7 Dashboard User Offline

Show users which are offline

7.7.1 Implementation

• Collect all users and compare with online users (active sessions)

7.7.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS_DashboardExtensions.xml
 - KIX4OTRS/Kernel/Output/HTML/Standard/AgentDashboardUserOffline.tt
 - KIX40TRS/Kernel/Output/HTML/DashboardUserOffline.pm

7.7.2 SysConfig Options

Key Name	Description
DashboardBackend###0401-UserOffline	Defines the parameters for the dashboard backend. "Limit" defines the number of entries displayed by default. "Group" is used to restrict access to the plugin (e. g. Group: admin;group1;group2;). "Default" indicates if the plugin is enabled by default or if the user needs to enable it manually. "CacheTTLLocal" defines the cache expiration period in minutes for the plugin.

7.8 Dynamic Fields Based on General Catalog Classes

Create multiselect and dropdown dynamic fields based on general catalog classes

7.8.1 Implementation

- Create new backend modul for dropdown general catalog dynamic field and for multiselect general catalog dynamic field
- add general catalog class to config for dynamic field

7.8.1.1 Related Structures

- a Filelist
 - KIX40TRGeneralCatalog/Kernel/Config/Files/KIX40TRS GeneralCatalog.xml
 - KIX40TRGeneralCatalog/Kernel/Modules/AdminDynamicFieldDropdownGeneralCatalog
 .pm
 - KIX4OTRGeneralCatalog/Kernel/Modules/AdminDynamicFieldMultiselectGeneralCatalog.pm
 - KIX4OTRGeneralCatalog/Kernel/Output/HTML/KIXSidebarTicketInfo.pm
 - KIX4OTRGeneralCatalog/Kernel/Output/HTML/Standard/AdminDynamicFieldDropdownG eneralCatalog.tt
 - KIX40TRGeneralCatalog/Kernel/Output/HTML/Standard/AdminDynamicFieldMultisele ctGeneralCatalog.tt
 - KIX4OTRGeneralCatalog/Kernel/System/DynamicField/Driver/DropdownGeneralCatalog.pm



- KIX40TRGeneralCatalog/Kernel/System/DynamicField/Driver/MultiselectGeneralCatalog.pm
- var/.../KIX4OTRS.pm

7.8.2 SysConfig Options

Key Name	Description
DynamicFields::Driver###MultiselectGene ralCatalog	Backend registration for multiselect dynamic field
DynamicFields::Driver###DropdownGeneralCatalog	Backend registration for dropdown dynamic field
Frontend::Module###AdminDynamicField MultiselectGeneralCatalog	Module registration for multiselect dynamic field
Frontend::Module###AdminDynamicField DropdownGeneralCatalog	Module registration for dropdown dynamic field

7.9 Clone CustomerUser or Agent

Clone a customer or an agent.

7.9.1 Implementation

- · Add button to edit mask to clone an agent or a customer
- · Empty UserID and UserLogin and reload edit mask

7.9.1.1 Related Structures

a Filelist

- $\bullet \verb| KIX40TRGeneralCatalog/Kernel/Config/Files/KIX40TRS_GeneralCatalog.xml| \\$
- KIX40TRGeneralCatalog/Kernel/Modules/AdminDynamicFieldDropdownGeneralCatalog
 .pm
- KIX4OTRGeneralCatalog/Kernel/Modules/AdminDynamicFieldMultiselectGeneralCata log.pm
- $\bullet \verb| KIX40TRGeneralCatalog/Kernel/Output/HTML/KIXSidebarTicketInfo.pm| \\$
- KIX4OTRGeneralCatalog/Kernel/Output/HTML/Standard/AdminDynamicFieldDropdownG eneralCatalog.tt
- KIX4OTRGeneralCatalog/Kernel/Output/HTML/Standard/AdminDynamicFieldMultisele ctGeneralCatalog.tt
- KIX4OTRGeneralCatalog/Kernel/System/DynamicField/Backend/DropdownGeneralCatalog.pm
- KIX40TRGeneralCatalog/Kernel/System/DynamicField/Backend/MultiselectGeneralC atalog.pm
- var/.../KIX4OTRS.pm

7.9.2 SysConfig Options

Key Name	Description
n.a.	n.a.

7.10 Dynamic Field Type ObjectReference

Dynamic field with autocomplete, dropdown or multiselect function to store different customer information. Field could be one of theese types: CustomerCompany, CustomerUser, User and would be filled with values out of the database.

7.10.1 Implementation

- Create new backend modul for each of the object reference dynamic fields.
- add function to create automaticly linked person



7.10.1.1 Related Structures

a Filelist

- KIX40TRS/Kernel/Config/Files/KIX40TRS DynamicField.xml
- KIX4OTRS/Kernel/Modules/AdminDynamicFieldCustomerUser.pm
- KIX4OTRS/Kernel/Output/HTML/Standard/AdminDynamicFieldCustomerUser.tt
- KIX4OTRS/Kernel/Output/HTML/Standard/AgentCustomerSearch.tt
- KIX40TRS/Kernel/System/DynamicField/Driver/ObjectReference/CustomerCompany.p
- KIX4OTRS/Kernel/System/DynamicField/Driver/ObjectReference/CustomerUser.pm
- KIX4OTRS/Kernel/System/DynamicField/Driver/ObjectReference/User.pm
- KIX4OTRS/Kernel/System/Ticket/Event/DFTypeCustomerUserAddLink.pm
- KIX4OTRS/var/httpd/htdocs/js/Core.Agent.CustomerSearch.js

7.10.2 SysConfig Options

Key Name	Description
Frontend::Module###AdminDynamicField CustomerUser	Backend registration for admin customer user dynamic field
DynamicFields::Driver###CustomerUser	Backend registration for customer user dynamic field
Ticket::EventModulePost###330-DFTypeC ustomerUserAddLink	Registers an event
Loader::Agent::CommonJS###000-Frame work	

7.11 Use Ticket Templates in Postmaster Filter

On creating a post master filter it should be able to set a X-Header containing the ID of the template which should be used.

7.11.1 Implementation

- Extended the X-Header section in SysConfig
- Extended the new ticket function for post master filter to use ticket templates. Data are now used in this priority:
 - data from X-Header
 - data from ticket template
 - default data for postmaster filter set e.g. by SysConfig

7.11.1.1 Related Structures

- a Filelist
- KIX4OTRS/Kernel/System/PostMaster/Filter/ExtendedFolloUp.pm
- KIX40TRS/Kernel/Config/Files/ExtendedFollowUp.xml

7.11.2 SysConfig Options

Key Name	Description
PostmasterX-Header	Extended from OTRS → X-OTRS-TicketTemplate

7.12 Assign Dynamic Fields Easily to Frontend Modules

On editing a dynamic field it should be possible to assign them to different frontend modules.

7.12.1 **Implementation**

- Output created to extend edit mask
- AJAX handler for assigning fields to frontends / sidebars / ticket lists

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7.12.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS_DynamicField.xml
 - $\bullet \verb| KIX40TRS/Kernel/Modules/AdminDynamicFieldSysConfigSettingsAJAXHandler.pm| \\$
 - KIX4OTRS/Kernel/Output/HTML/OutputFilterAdminDynamicFieldSysConfigSetting s.pm

7.12.2 SysConfig Options

Key Name	Description
Frontend::Output::FilterElementPre###AdminDynamicFieldSysConfigSettings	Defines output filter
Frontend::Module###AdminDynamicFieldSysConfigSettingsAJAXHandler	Module registration for AJAX handler

7.13 Async Option Added in Core.AJAX.js

Added async option for AJAX request in FormUpdate, FunctionCall and ContentUpdate.

7.13.1 Implementation

· async option added

7.13.1.1 Related Structures

a Filelist

• var/httpd/htdocs/js/Core.AJAX.js

7.13.2 SysConfig Options

Key Name	Description
n.a	n.a



8 Layout extensions

8.1 Date Input - Eligible Smart Format

In default OTRS, date and time inputs are separated in one input field for each part of dates and times – all in all three fields for dates and two fields for times. For most users it's much easier to use one field for a date input and one field for a time input.

8.1.1 Implementation

 Changed BuildDateSelection() to create also smart time and smart date fields if option selected in SysConfig

8.1.1.1 Related Structures

- a Filelist
 - KIX40TRS/Kernel/Config/Files/KIX40TRS Layout.xml
 - KIX4OTRS/Kernel/Output/HTML/LayoutKIX4OTRS.pm
 - var/httpd/htdocs/js/Core.KIX4OTRS.DateTimeFields.js
 - var/httpd/htdocs/js/Core.UI.Datepicker.js

8.1.2 SysConfig Options

Key Name	Description
Loader::Agent::CommonJS###102-KIX4OTRSTimeInput	Registration of needed javascript functions
Loader::Customer::CommonJS###102-KIX4OTRSTimeInput	Registration of needed javascript functions
DateSelection::Layout::SmartDateInput	Enable a smart style for date inputs (SysConfig-option TimeInputFormat will be ignored)
DateSelection::Layout::SmartTimeInput	Enable a smart style for time inputs (SysConfig-option TimeInputFormat will be ignored)
DateSelection::Layout::TimeInputIntervalI	Sets the minute interval used for in time selections

8.2 Deactivate Form During AJAX Requests

OTRS provides a layout class "PreventMultipleSubmits" to prevent forms from being submitted twice. It also provides javascript functions to highlight fields which are awaiting an AJAX update.

In contrast to this, forms can be submitted during an ongoing AJAX request, e.g. by the use of key enter. This should not be possible, especially since this behavior forces error messages shown to the user.

8.2.1 Implementation

 New javascript functions to disable forms whenever an AJAX request is started and to enable this forms whenever the AJAX request was completed.

8.2.1.1 Related Structures

- a Filelist
 - var/httpd/htdocs/js/Core.AJAX.js



8.2.2 SysConfig Options

Key Name	Description
n.a.	n.a.

8.3 Customized Sidebar Width

Scale the KIXSidebar by clicking on the border of the sidebar. On releasing the mouse button the size will be safed for this frontend modul to be set again on repeated inquiry.

8.3.1 ImplementationCustomized

· New javascript functions to resize the sidebar

8.3.1.1 Related Structures

- a Filelist
 - var/httpd/htdocs/js/Core.KIX4OTRS.KIXSidebar.js

8.3.2 SysConfig Options

Key Name	Description
n.a.	n.a.

8.4 Customized Sidebar Modul Order

Sort the KIXSidebar modules by clicking on the haeder of one sidebar modul and dragging it to new position. On releasing the mouse button the sort order will be safed for this frontend modul to be set again on repeated inquiry.

8.4.1 Implementation

- New javascript functions to customize the sort order
- New Subaction to save the new sort order

8.4.1.1 Related Structures

- a Filelist
 - var/httpd/htdocs/js/Core.KIX40TRS.KIXSidebar.js

8.4.2 SysConfig Options

Key Name	Description
n.a.	n.a.

8.5 Customized Popup Size

Save width and height of a popup depending on user and frontend modul.

8.5.1 Implementation

· New javascript functions to resize the sidebar

8.5.1.1 Related Structures

- a Filelist
 - var/httpd/htdocs/js/Core.KIX40TRS.KIXSidebar.js
 - KIX4OTRS/Modules/PopupSize.pm



8.5.2 SysConfig Options

Key Name	Description
Frontend::Output::FilterElementPre###AgentTicketPopupSize	Defines output filter for customized popup size and affected templates
Frontend::Module###PopupSize	Module Registration for the PopupSize AJAXHandler.

8.6 Show or Hide Dynamic Fields Depending on Selected Values

Depending on SysConfig keys or configured ACL via editor and changing selected values for TicketType, NextState, Priority, Queue or Service during ticket processes dynamic fields could be displayed or hidden.

HINT: Dynamic fields displayed in the dynamic field sidebar will always be shown and not hidden by ACL.

8.6.1 Implementation

- All dynamic fields are now updatable not only selections or multiselects
- Subroutine for each frontend module which checks if field should be shown or hidden
- Acl to use configured disabled dynamic fields via SysConfig
- Created a possibility to use "Form" in the ACL-Editor

8.6.1.1 Related Structures

a Filelist

- KIX40TRS/Modules/AgentTicketCompose.pm
- KIX4OTRS/Modules/AgentTicketEmail.pm
- KIX4OTRS/Modules/AgentTicketForward.pm
- KIX4OTRS/Modules/AgentTicketMove.pm
- KIX4OTRS/Modules/AgentTicketPhone.pm
- KIX4OTRS/Modules/AgentTicketPhoneCommon.pm
- KIX4OTRS/Modules/AgentTicketZoomTabActionCommon.pm
- KIX4OTRS/Modules/AgentTicketActionCommon.pm
- KIX4OTRS/System/Ticket/TicketExtensionsKIX4OTRS.pm
- KIX4OTRS/System/Ticket/ACL/DisabledDynamicFields.pm
- $\bullet \quad \texttt{KIX4OTRSIncidentProblem/Mopdules/AgentTicketEmail.pm}\\$
- KIX4OTRSIncidentProblem/Modules/AgentTicketPhone.pm
 KIX4OTRSIncidentProblem/Modules/AgentTicketEmail.pm
- var/httpd/htdocs/js/Core.AJAX.js

8.6.2 SysConfig Options

Key Name	Description
Ticket::Frontend::DynamicField###DisabledDynamicFields	Configures which dynamic fields were disabled depending on used <u>frontend</u> module, attributes like service, type, state or priority and its value. The key is composed like FrontendModule:::Attribute::Value. The key should contain the names of the disabled fields using regular expressions. If dynamic fields should be hidden on empty values, use EMPTY like FrontendModule:::Attribute::EMPTY.

8.7 Customize Default Field Order

Change default field sort order depending on SysConfig keys and selected frontend



8.7.1 Implementation

- Create sort order array based on defined SysConfig entries pairs of priority and id – and resort form using JQuery
- use hidden CustomizeForm-KIXSidebar modul sort first, hide later
- adapting tt-files: every label should have a unique for-attribute
- default priority: 1000
- priorities are defined directly at customize form SysConfig key

8.7.1.1 Related Structures

a Filelist

- KIX4OTRS/Config/Files/KIX4OTRS KIXSidebar.xml
- KIX4OTRS/Output/HTML/Standard/AgentTicketCompose.tt
- KIX4OTRS/Output/HTML/Standard/AgentTicketEmail.tt
- KIX4OTRS/Output/HTML/Standard/AgentTicketForward.tt
- KIX40TRS/Output/HTML/Standard/AgentTicketPhone.tt
- KIX4OTRS/Output/HTML/Standard/AgentTicketPhoneCommon.tt
- $\bullet \quad \texttt{KIX4OTRS/Output/HTML/Standard/AgentTicketZoomTabActionCommon.tt}$
- KIX40TRS/Output/HTML/Standard/AgentTicketActionCommon.tt
- KIX4OTRS/Output/HTML/Standard/CustomerTicketMessage.tt
- KIX4OTRS/Output/HMTL/KIXSidebarCustomizeForm.pm
- $\bullet \quad \texttt{KIX4OTRS/Output/HMTL/Standard/AgentKIXSidebarCustomizeForm.tt}\\$
- KIX4OTRSConfigManagement/Output/HTML/Standard/CustomerTicketMessage.tt
- $\bullet \quad \texttt{KIX4OTRSIncidentProblem/Output/HTML/Standard/AgentTicketEmail.tt}$
- KIX4OTRSIncidentProblem/Output/HTML/Standard/AgentTicketPhone.tt
- KIX40TRSIncidentProblem/Output/HTML/Standard/AgentTicketEmail.tt

8.7.2 SysConfig Options

Key Name	Description
Frontend::KIXSidebarBackend###CustomizeForm	Parameters for the KIXSidebar <u>backend</u> CustomizeForm.

8.8 KIX4OTRS Layout Adaption

Special skin used after KIX4OTRS is installed. Typical is the orange header with the grey line and its small bend. The background of the navigation bar is a colour gradient from white to grey.

8.8.1 Implementation

- The CSS for this layout is divided in a functional part which is stored under the default skin and a colour part which is stored under the KIX4OTRS skin
- This layout adaption needs the new tsunami framework to store the CSS-files in the KIX4OTRS folder.

8.8.1.1 Related Structures

a Filelist

- KIX40TRSvar/httpd/htdocs/skin/Agent/default/*
- KIX40TRSvar/httpd/htdocs/skin/Agent/ivory/*
- KIX40TRSvar/httpd/htdocs/skin/Agent/KIX40TRS/*
- KIX4OTRSvar/httpd/htdocs/skin/Customer/default/*
- KIX4OTRSvar/httpd/htdocs/skin/Customer/KIX4OTRS/*

8.8.2 SysConfig Options

Key Name	Description
n.a.	n.a.

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8.9 KIXSidebar Registration

Defines in which frontend module the KIXSidebar should be shown.

8.9.1 Implementation

- The KIXSidebar for frontend modules could be registrated in three ways:
 - first in the old manner using one SysConfig key for each frontend and there one for each sidebar module
 - second using one SysConfig per sidebar module for all frontend modules
 - the parameter "Action" could be a regular expression containing all frontend modules where the sidebar should be shown
 - the parameter "Prio" defines the order of the sidebar modules
 - and third adding sidebars flexible per SysConfig at runtime
- The priority of all described registration options is like the order they are listed above.
- · Agent and customer registration are idenpendently of each other

8.9.1.1 Related Structures

a Filelist

- KIX4OTRS/Config/Files/KIX4OTRS KIXSidebar.xml
- KIX4OTRS/Output/HMTL/LayoutKIX4OTRS.pm

8.9.2 SysConfig Options

Key Name	Description
Frontend::KIXSidebarBackend###TicketInfo	Parameters for the KIXSidebar <u>backend</u> TicketInfo.
Frontend::KIXSidebarBackend###CustomerInfo	Parameters for the KIXSidebar <u>backend</u> CustomerInfo.
Frontend::KIXSidebarBackend###TextModules	Parameters for the KIXSidebar <u>backend</u> TextModules.
Frontend::KIXSidebarBackend###LinkedPersons	Parameters for the KIXSidebar <u>backend</u> LinkedPersons.
Frontend::KIXSidebarBackend###Scratchpad	Parameters for the KIXSidebar <u>backend</u> <u>Scratchpad</u> (Remarks).
Frontend::KIXSidebarBackend###CustomizeForm	Parameters for the KIXSidebar <u>backend</u> CustomizeForm.
Frontend::KIXSidebarBackend###ReuseArticleAttachments	Parameters for the KIXSidebar <u>backend</u> Reuse ArticleAttachments.
CustomerFrontend::KIXSidebarBackend###TextModules	Parameters for the KIXSidebar <u>backend</u> TextModules.
CustomerFrontend::KIXSidebarBackend###CustomizeForm	Parameters for the KIXSidebar <u>backend</u> CustomizeForm.
KIXSidebarTools###Identifier	Registers an identifier for the KIXSidebarTools. Value is used in the following config options.
KIXSidebarTools###ActionsMatch	Defines which ticket actions have to be used (agent and customer <u>frontend</u> is possible). Key has to be one of the identifier (see above). Value defines used ticket actions and has to be filled at any time. Multiple actions can be separated by ;.
KIXSidebarTools###Data	Defines connection data (e.g. Example:::Database). Key has to be one of the identifier (see above).



8.10 State Highlighting for Linked Tickets

The list of linked tickets has a state highlighting like the ticket list in QueueView.

8.10.1 Implementation

Uses the same configuration like the highlighting in QueueView.

8.10.1.1 Related Structures

- a Filelist
 - KIX4OTRS/var/.../KIX4OTRS.Table.css
 - KIX40TRS/Kernel/Output/HTML/LinkObjectTicket.pm

8.10.2 SysConfig Options

Key Name	Description
n.a.	n.a.

8.11 State Highlighting for Dashboard

The list of dashboard tickets has a state highlighting like the ticket list in QueueView.

8.11.1 Implementation

Uses the same configuration like the highlighting in QueueView.

8.11.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Output/HTML/DashboardTicketGeneric.pm
 - $\bullet \quad \texttt{KIX40TRS/Kernel/Output/HTML/Standard/AgentDashboardTicketQueueOverview.tt}$

8.11.2 SysConfig Options

Key Name	Description
n.a.	n.a.

8.12 Additional CSS Data Table Format

· added CSS definitions for data table footer

8.12.1 Implementation

· extend format for footer in data tables

8.12.1.1 Related Structures

- a Filelist
 - KIX40TRS/var/httpd/htdocs/skins/Agent/default/css/KIX40TRS.Table.css

8.12.2 SysConfig Options

Key Name	Description
n.a.	n.a.



8.13 Overridable QData character limits

- Data character limits used in *.tt, i.e. [% Data.TicketTitle | truncate(30) %], can be overridden depending on some frontend action and variable combination
- · RegEx patterns can be used

8.13.1 Implementation

- Output filter to replace all affected values
- configuration is contained in KIX4OTRS

8.13.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS Layout.xml
 - OutputFilterOverrideQDataDisplayLimits.pm

8.13.2 SysConfig Options

Key Name	Description
Frontend::OverrideQDataDisplayLimits	Allows overriding of Data character limits, hard coded in TTs.
	The key has the following format: <templatefilepattern>::<variablenamepatte rn=""></variablenamepatte></templatefilepattern>
	You can use RegEx. The value is the numeric character limit that should be used.
<u>Frontend</u> ::Output::FilterElementPre###OverrideQDataDisplay Limits	Replaces the default Data character limits in TTs

8.14 Customized Columns for Linked Objects

Columns and column order could be selected by agent for every frontend showing linked objects like tabs or popup

8.14.1 Implementation

- · preferences key added to show column selection
- settings icon in right upper corner shown on mouse over
- default columns for link type "document" added
- each link type object modified to use default or user defined columns

8.14.1.1 Related Structures

- a Filelist
 - KIX40TRS/Config/Files/KIX40TRS LinkObject.xml
 - KIX40TRS/Config/Files/KIX40TRS Document.xml
 - KIX4OTRS/Config/Files/KIX4OTRS_TicketZoom.xml
 - KIX40TRS/Language/de Document.pm
 - KIX40TRS/Language/de KIX40TRS.pm
 - KIX40TRS/Modules/AgentLinkObject.pm
 - KIX4OTRS/Modules/AgentTicketZoomTabLinkedObjects.pm
 - KIX40TRS/Output/HTML/LayoutLinkObject.pm
 - KIX40TRS/Output/HTML/LinkObjectDocument.pm
 - KIX4OTRS/Output/HTML/LinkObjectPerson.pm
 - KIX4OTRS/Output/HTML/LinkObjectTicket.pm
 - KIX40TRS/Output/HTML/Standard/AgentLinkObject.tt
 - KIX40TRS/Output/HTML/Standard/AgentTicketZoomTabLinkedObjects.tt
 - KIX4OTRS/Output/HTML/Standard/LinkObject.tt
 - KIX40TRS/Output/HTML/Standard/PreferencesLinkObject.tt
 - KIX4OTRSITSMChangeManagement/Modules/AgentITSMChangeZoom.pm
 - KIX4OTRSITSMChangeManagement/Modules/AgentITSMChangeZoomTabLinkedObjects.pm



- KIX4OTRSITSMChangeManagement/Modules/AgentITSMWorkOrderZoom.pm
- KIX4OTRSITSMChangeManagement/Modules/AgentITSMWorkOrderZoomTabLinkedObjects.pm
- KIX4OTRSITSMChangeManagement/Output/HTML/LinkObjectITSMChange.pm
- $\bullet \verb| KIX4OTRSITSMChangeManagement/Output/HTML/LinkObjectITSMWorkOrder.pm|\\$
- KIX4OTRSITSMChangeManagement/Output/HTML/Standard/AgentITSMChangeZoom.tt
- KIX4OTRSITSMChangeManagement/Output/HTML/Standard/AgentITSMChangeZoomTabLinkedObjects.tt
- KIX4OTRSITSMChangeManagement/Output/HTML/Standard/AgentITSMWorkOrderZoom.tt
- KIX4OTRSITSMChangeManagement/Output/HTML/Standard/AgentITSMWorkOrderZoomTabLinked Objects.tt
- KIX40TRSITSMConfigManagement/Language/de KIX40TRSITSMConfigManagement.pm
- KIX4OTRSITSMConfigManagement/Modules/AgentITSMConfigItemZoomTabLinkedObjects.pm
- KIX4OTRSITSMConfigManagement/LinkObjectITSMConfigItem.pm
- $\bullet \hspace{0.1in} \texttt{KIX4OTRSITSMConfigManagement/Output/HTML/Standard/AgentITSMConfigItemZoomTabLinke} \hspace{0.1in} \texttt{dObjects.tt} \\$
- KIX4OTRSITSMCore/Output/HTML/LinkObjectService.pm
- var/httpd/htdocs/js/Core.Agent.TableFilters.js

8.14.2 SysConfig Options

Key Name	Description
PreferencesGroups###LinkedObjectFilterSettings	preferneces key to display customized column selection for linked objects
Document::DefaultColumns	default columns for displaying linked document objects
Frontend::Module###AgentTicketZoomTabLinkedObjects	Module registration - new javascript files added
Frontend::Module###AgentLinkObject	Module registration - new javascript files added

8.15 Queue Link for Dashboard Ticket Lists

Clicking on queue name in dashboard ticket lists should open queue view for selected queue.

8.15.1 Implementation

• Use link block to display queue name and link to queue view.

8.15.1.1 Related Structures

- a Filelist
 - Kernel/Output/HTML/DashboardTicketGeneric.pm

8.15.2 SysConfig Options

Key Name	Description
n.a.	n.a.

8.16 Preference to use Article Colors or not

User preference to provide a possibility to switch on or off the article colors in article tab.

8.16.1 Implementation

User preference added to user settings



8.16.1.1 Related Structures

- a Filelist
 - KIX40TRS PreferencesExtensions.xml
 - AgentTicketZoom.pm

8.16.2 SysConfig Options

Key Name	Description
PreferencesGroups###UseArticleColors	Defines user preference

8.17 Closeable Notify-Messages

Notify-Messages, especially from the ones created by the framework (i.e. Scheduler messages) will be shown as long as they persist and are visible for every agent. It should be possible that an agent can close these messages.

8.17.1 Implementation

- Notify div get's a close icon and an ID
- the ID will be calculated as md5_hex from the caller function + calling line + message content
- click-bind will update a user preference related to the ID of the notify message with the SessionID
- the notify-message of this ID will then be suppressed during this session

8.17.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Output/HTML/Standard/Notify.tt
 - KIX40TRS/Kernel/Output/HTML/LayoutKIX40TRS.pm
 - KIX4OTRS/var/httpd/htdocs/skins/Agent/KIX4OTRS/css/KIX4OTRS.Default.css
 - var/httpd/htdocs/js/Core.UI.js
 - KIX4OTRS.sopm

8.17.2 SysConfig Options

None

8.18 Link to Online Help

A link to an KIX online help should be shown in the header, near the logout link

8.18.1 Implementation

- Output filter to insert the necessary HTML
- configuration is contained in KIX4OTRS

8.18.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS Layout.xml
 - KIX4OTRS/Kernel/Language/de_KIX4OTRS.pm
 - KIX4OTRS/Kernel/Output/HTML/OutputFilterOnlineHelp.pm
 - KIX40TRS/var/httpd/htdocs/skins/Agent/default/css/KIX40TRS.Header.css

8.18.2 SysConfig Options

Key Name	Description
KIXHelpURL	URL to the KIX online help pages
Frontend::Output::FilterElementPost###OnlineHelp	Inserts the necessary HTML

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9 Link Object Extensions

9.1 Linked Object Type "Ticket"

In OTRS the search mask in linking tickets does not contain fields like ticket type or queue. Skin usage in display of linked tickets and highlight shown tickets if they are in a closed state should be improved.

9.1.1 Implementation

- · Show further column "type" to display current ticket type
- Show ticket title in links
- Allow to set individual search criteria in link mask (configurable via SysConfig)
- Use user preference to ex-/include merged tickets from/to list of linked objects
- Highlight tickets which are already closed
- Changed layout templates for better usability (use of titles and labels)
- Create ticket history entry for every link action, no matter if it's a ticket-ticket-link-action or not

9.1.1.1 Related Structures

a Filelist

- KIX4OTRS/Kernel/Config/Files/KIX4OTRS LinkObject.xml
- KIX40TRS/Kernel/Config/Files/KIX40TRS PreferencesExtensions.xml
- KIX40TRS/Kernel/Language/de KIX40TRS.pm
- KIX4OTRS/Kernel/Output/HTML/LinkObjectTicket.pm
- KIX4OTRS/Kernel/Output/HTML/Standard/AgentLinkObject.tt
- KIX4OTRS/Kernel/Output/HTML/Standard/LinkObject.tt
- KIX40TRS/Kernel/System/LinkObject/Ticket.pm
- KIX4OTRS/Kernel/System/TicketExtensionsKIX4OTRS.pm

9.1.2 SysConfig Options

Key Name	Description
LinkObject::PerformEmptySearch	Dis-/enables to allow a search with empty search parameters in link object mask.
Ticket::Link::SearchOptions::Order	Defines possible search criteria in the agents link interface for target object "Ticket". Order is important. Value is used as internal name.
Ticket::Link::SearchOptions::Name	Defines displayed name for configured search criteria. Key has to be one of the internal names (see above); Value is used as name in the interface.
Ticket::Link::SearchOptions::Order	Defines data source for configured search criteria. Key has to be one of the internal names (see above); Value is used as name in the interface.
PreferencesGroups###ShowMergedTicketsInLinkedObjects	Defines user preference to ex-/include merged tickets from/to list of linked objects

9.2 Linked Object Type "Document"

Create a new class of link objects which represents documents that are available at the OTRS-system/server (accessible to the web server-user on the OTRS application server, OTRS only reads the document, OTRS does not perform any write action) Provide linked documents for download depending on permissions of users, role or group membership. Just show linked document names if no permission. Allow to create/remove document links by selecting results from search for document names. KIX4OTRS does not loose document link when document has been renamed or moved



within the mounted share (within a certain range)

9.2.1 Implementation

- Recursive file search (FS backend) stores all files found in DB table kix_file_watcher (with some additional attributes like MD5 sum, filesize, last modification date, ...)
- OTRS LinkObject will use primary ID in kix_file_watcher table to link files to tickets
- Every new search inserts new file entries into table kix_file_watcher and updates old ones
- Script kix.FileWatcher.pl synchronizes all files stored in table kix_file_watcher (called meta data), so that the FS backend can keep track of renamed, changed and/or moved documents
- In case a document found in the meta data doesn't exist any longer (during synchronization process), i.e. it has been renamed, changed or moved, the synchronization process tries if another known file can be the one missing
- To do that the sync process does the following:
 - Search meta data for file with the same filename or fingerprint (MD5 sum) or size or last modification time which are not already outdated (marked as no longer available)
 - All found entries will be checked by applying a weighting scheme (hardcoded at the moment, A = org. File, B = possible replacement, distance = Levenshtein Algorithm):

```
    same LastModTime = 20 Points
    SizeWeight = B.size / A.size * 30 Points
    NameWeight = (length(A.name) - distance(A.name, B.name)) / length(A.name) * 50 Points
    PathWeight = (length(A.path) - distance(A.path, B.path)) / length(A.path) * 50 Points
    same Fingerprint (MD5 sum) = 100 Points
```

- The weights of all (matching) attributes will be added up
- A list will be build containing the possible replacement candidates sorted by their weight in descending order
- Only candidates with a weight above a given weight threshold (100, hardcoded at the moment) will be considered useful
- After that the candidate with the highest weight will be taken
- If there is only one candidate, this one will be referenced as replacement for the old file, the old file will be marked as outdated
- If there are multiple candidates with the same (highest) weight left, no update will be done, only a log entry will be created in OTRS log
- Changed layout templates for better usability (input validation)

9.2.1.1 Related Structures

a Filelist

- bin/kix.FileWatcher.pl
- KIX4OTRS/Kernel/Config/Files/KIX4OTRS_Document.xml
- KIX4OTRS/Kernel/Config/Files/KIX4OTRS_LinkObject.xml
- KIX4OTRS/Kernel/Language/de Document.pm
- KIX4OTRS/Kernel/Modules/AgentLinkObjectUtils.pm
- KIX4OTRS/Kernel/Output/HTML/LinkObjectDocument.pm
- KIX4OTRS/Kernel/Output/HTML/Standard/AgentLinkObject.tt
- KIX40TRS/Kernel/System/Document.pm
- KIX4OTRS/Kernel/System/Document/FS.pm
- scripts/kix.create_filewatcher_meta.pl
- var/cron/kix.filewatcher.dist

b Table/Table Columns

- kix file watcher
 - ° id
 - o parent_id
 - o fingerprint
 - o path



- path_lower
 name
 name_lower
 first_found
 last_found
- ° last_mod
- o mod_type
- ° size
- o Outdated

9.2.2 SysConfig Options

5.2.2 Syscoming Options	
Key Name	Description
LinkObject::Type###DocumentLink	This setting defines the link type 'DocumentLink'.
LinkObject::PossibleLink###9902	This setting defines that a 'Ticket' object can be linked with documents using the 'DocumentLink' link type.
	Object1 => Ticket
	Object2 => Document
	Type => DocumentLink
Document###Sources	Here you have to define a list of sources (some sort of document container). Just give them some ID and some text that will be displayed in the GUI.
	Example:
	o ID/key: TmpShare
	 Text/value: This is our temporary document share
Document###Backend	Here you have to define the backend to be used for each configured source. Currently only "FS" (Filesystem) is supported.
	Example:
	ID/key: TmpShare
	o Backend/value: FS
Document###Parameters	For each source you have to define the parameters for the configured backend. The backend "FS" (Filesystem) accepts one parameter named "RootDir". Each FS-Source can be a container of one or more different root directories. The web server-user need READ(or RW)-Permissions on the directories.
	Example:
	o ID/key: TmpShare
	 Parameters/value: RootDir=/documents/tmp
	If you want to configure a collection of directories to be used as root directories for some source, you can do that by appending more RootDir options.
	Example:
	o ID/key: TmpShare
	 Parameters/value: RootDir=/documents/tmp,RootDir=/tmp,RootDir=/ho me/documents
Document###Access	Here you have to define the permissions of a user to access this source. You can define a list of roles and/or groups a user has to belong to and/or assign single users.
	Example:
	o ID/key: TmpShare
	 Access/value: Role=Developer,Role=Support,Group=users,Group=FAQ,User=root@localhost,User=RSchmidt,User=TMueller
Document::FS###SearchType	Specify the search type in FS sources ("live" is slower but does a live search in the directory tree and updates the meta data of the resulting files in the DB, "meta" is fast but only uses the meta data

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Key Name	Description
	stored in the DB).
	META => meta
	• LIVE => live
	The "FS" backend tries to keep track of a file, even if it is moved between directories or even different sources, changed or renamed. To do this it will create and update some meta data in the database.
	With this option you can define if the backend should search in the directory tree (a "live" search) or use its meta data in the database.
	The "meta" option is especially useful if you are searching a huge directory tree and expecting long searches and have configured meta sync (see next option).
Document::FS###SyncType	Specify the sync type for the periodic full sync of filesystem document sources.
	 DirectorySearch => DirectorySearch
	MetaFile => MetaFile
	To keep track of a moved, changed and/or renamed file, the meta data in the database has to be updated on a regular basis. This will be done with a cronjob. If the cronjob is activated, this option defines how the "FS" backend will sync and update it's meta data with the filesystem.
	"DirectorySearch" means that it will search through all FS sources and read each file, "MetaFile" will use the meta data files defined in the next option. "MetaFile" will be particularly helpful if you import/mount huge document shares via NFS or SMB into the OTRS server, because otherwise (using "DirectorySearch") the sync would read gigabytes of data and stress your network.
Document::FS###MetaFiles	Here you can define one or more meta data files to be used to sync and update the meta data stored in the database. If your document files are located on a different server than the OTRS server (i.e. a central document share using Samba), you can create a cronjob on this server which creates the meta files locally and your OTRS server just has to copy these meta files into its filesystem (if they are not stored in one of the mounted document shares) so that the DocumentLink sync jobs can access them.

9.3 Linked Object Type "Person"

Create a new class of link objects which represents persons. Classify persons depending on if they are agents or customers. Automatically collect persons on ticket owner/responsible update, receiving/sending emails (evaluation of To- and Cc-receipients). Add/use link types to link persons with tickets:

- "Agent" if person is known as agent in OTRS
- "3rd person" if person is in customer data base but it's customer ID differs from the tickets customer ID
- "customer" if person is in customer data base and it's customer ID is equal to the tickets customer ID

Provide linked persons in any article creation mask as To-, CC- or Notify-receipients as KIXSideBar plugin. Upgrade "InvolvedPersons" from OTRS::CiCS to link object "Person" in package upgrade/installation. Changed layout templates for better usability (input validation). Blacklist for persons (UserLogin/Email) who should not be linked automaticly

9.3.1 Implementation

- New link object persons corresponding to other link objects
- New link types ("Agent", "Customer", "3rd person")
- New link type configuration for linking tickets with persons



- Ticket event handler to automatically collect persons on article creation
- KIXSideBar "Linked Persons"
 - Show action depending select boxes (To-/Cc-/Bcc-selection in email masks, checkboxes in phone-/note-article creating masks)
 - Add JS-methods to set To-, Cc-, Bcc-fields in email masks
 - Extend frontend modules to handle params for notifications for linked persons
- Extended frontend module to link persons to its relevant person type only
- Extended template generator for method for notification of linked persons (sub NotificationLinkedPerson)
- Extended ticket methods for sending notifications of linked persons (sub SendLinkedPersonNotification)

9.3.1.1 **Related Structures**

a Filelist

- KIX40TRS/Kernel/Config/Files/KIX40TRS LinkObject.xml
- KIX4OTRS/Kernel/Config/Files/KIX4OTRS LinkObjectPerson.xml
- KIX4OTRS/Kernel/Config/Files/KIX4OTRS KIXSidebar.xml
- KIX40TRS/Kernel/Language/de KIX40TRS.pm
- KIX40TRS/Kernel/Modules/AgentLinkObject.pm
- KIX40TRS/Kernel/Modules/AgentLinkObjectUtils.pm
- KIX4OTRS/Kernel/Modules/AgentTicketPhone.pm
- KIX4OTRS/Kernel/Modules/AgentTicketActionCommon.pm
- $\bullet \quad \texttt{KIX4OTRS/Kernel/Modules/AgentTicketZoomTabActionCommon.pm}$
- KIX4OTRS/Kernel/Modules/KIXSidebarLinkedPersonsAJAXHandler.pm
- KIX40TRS/Kernel/Output/HTML/KIXSidebarLinkedPersons.pm
- KIX40TRS/Kernel/Output/HTML/LayoutKIX40TRS.pm
- KIX40TRS/Kernel/Output/HTML/LinkObjectPerson.pm
- KIX4OTRS/Kernel/Output/HTML/Standard/AgentKIXSidebarLinkedPersons.tt
- KIX4OTRS/Kernel/Output/HTML/Standard/AgentLinkObject.tt
- KIX40TRS/Kernel/System/LinkObject/Person.pm
- KIX4OTRS/Kernel/System/Ticket/TicketExtensionsKIX4OTRS.pm
- KIX4OTRS/Kernel/System/Ticket/Event/AutoCreateLinkedPerson.pm
- KIX4OTRS/Kernel/System/TemplateGenerator.pm
- KIX4OTRSITSMIncidentProblem/Kernel/Modules/AgentTicketActionCommon.pm
- KIX4OTRSITSMIncidentProblem/Kernel/Modules/AgentTicketZoomTabActionCommon.pm
- var/httpd/htdocs/js/Core.KIX4OTRS.js
- var/httpd/htdocs/js/Core.KIX4OTRS.LinkedPersons.js
- var/httpd/htdocs/skins/Agent/KIX4OTRS/css/Core.Default.css
- var/httpd/htdocs/skins/Agent/KIX40TRS/css/Core.WidgetMenu.css
- var/httpd/htdocs/skins/Agent/KIX4OTRS/img/widget bg 100.png
- KIX4OTRS.sopm

b Table/Table Columns

- link object (inserts of Person as new link object)
- link type (inserts of Agent, Customer and 3rdParty as new link types)
- notifications (templates for linked person notifications in English)
- notifications (templates for linked person notifications in German)
- ticket history type (history type SendLinkedPersonNotification)

9.3.2 SysConfig Options

Key Name	Description
Ticket::EventModulePost### AutoCreateLinkedPerson	Create new linked person on ticket events as new article or owner update
	Module => Kernel::System::Ticket::Event::AutoCreateLinkedPerson
	Event => (ArticleCreate TicketOwnerUpdate TicketResponsibleUpdate TicketMerge)
LinkObject::Type###Agent	This setting defines the person link type 'agent'.
LinkObject::Type###Customer	This setting defines the person link type 'customer'.
LinkObject::Type###3rdParty	This setting defines the person link type '3rd party'.
LinkObject::PossibleLink###9910	This setting defines that a 'Ticket' object can be linked



Key Name	Description
	with persons using the 'agent' link type.
LinkObject::PossibleLink###9911	This setting defines that a 'Ticket' object can be linked with persons using the 'customer' link type.
LinkObject::PossibleLink###9912	This setting defines that a 'Ticket' object can be linked with persons using the '3rd party' link type.
Loader::Agent::CommonJS###000-KIX4OTRS	Provides javascript functions needed for linked person handling.
Loader::Agent::CommonJS### 200-KIX4OTRSLinkedPersons	List of JS files to always be loaded for the agent interface.
LinkedPerson::EmailRecipientTypes	Defines how the linked persons can be included in emails.
LinkedPerson::AllowNonAgentNotifyForInternalArticl es	Defines if linked persons of types "Customer" and "3rd Party" can be selected for notification of internal articles.
LinkedPerson::ModeComplex### Columns	Defines the order and which person attributes are displayed in complex link presentation.
LinkedPerson::ModeComplex### ColumnHeaders	Defines the order of column headers of the person attributes displayed in complex link presentation.
LinkedPerson::DetailKeys	Defines the order and which person attributes are displayed in detail presentation.
Frontend::AgentTicketZoomTabActionCommon:: KIXSidebarBackend###0300-LinkedPersons	Activates and integrates the linked persons selections as a KIX sidebar module in agents ticket processing masks
Frontend::AgentTicketZoomTabEditCoreData:: KIXSidebarBackend###0300-LinkedPersons	Activates and integrates the linked persons selections as a KIX sidebar module in agents ticket zoom's processing mask
Frontend::AgentTicketCompose:: KIXSidebarBackend###0300-LinkedPersons	Activates and integrates the linked persons selections as a KIX sidebar module in agents ticket processing masks
Frontend::AgentTicketForward:: KIXSidebarBackend###0300-LinkedPersons	Activates and integrates the linked persons selections as a KIX sidebar module in agents ticket processing masks
Frontend::AgentTicketNote:: KIXSidebarBackend###0300-LinkedPersons	Activates and integrates the linked persons selections as a KIX sidebar module in agents ticket processing masks
Frontend::AgentTicketPhoneOutbound:: KIXSidebarBackend###0300-LinkedPersons	Activates and integrates the linked persons selections as a KIX sidebar module in agents ticket processing masks
AutoCreateLinkedPerson###Blacklist	Blacklist - UserLogin/Email as a array, regex supported
Frontend::Module###KIXSidebarLinkedPersonsAJAX Handler	Module registration of AJAX handler

9.4 Flexible Person Inform Type

PersonInformType is hardcoded on AgentTicketForward and AgentTicketCompose. It should be possible to select the action to use PersonInformType

9.4.1 Implementation

Created SysConfig key to define on which actions persons should be informed per mail

9.4.1.1 Related Structures

- a Filelist
- KIX4OTRS/Kernel/Config/Files/KIX4OTRS LinkObjectPerson.xml



- KIX40TRS/Kernel/Language/de_KIX40TRS.pm
- KIX4OTRS/Kernel/Output/HTML/KIXSidebarLinkedPersons.pm

9.4.2 SysConfig Options

Key Name	Description
LinkedPerson::InformPersonByMail	Actions using inform per mail



10Ticket Extensions

10.1 Dashboard Ticket Generic Extensions

 Dashboard plugins should highlight those tickets which are close to or already escalated.

10.1.1 Implementation

Modify Kernel::Output::HTML::DashboardTicketGeneric

10.1.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS DashboardExtensions.xml
 - KIX4OTRS/Kernel/Output/HTML/DashboardTicketGeneric.pm
 - var/httpd/htdocs/skins/Agent/KIX4OTRS/css/Core.Form.css

10.1.2 SysConfig Options

Key Name	Description
n.a.	n.a.

10.2 Dashboard Ticket Stats Extensions

In default OTRS, the agent's dashboard provides a graphical statistics for tickets created or closed last 7 days only

10.2.1 Implementation

- Common dashboard modules
 - Graphical statistic for tickets created or closed last month
 - Graphical statistic for tickets created or closed last two weeks

10.2.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS DashboardExtensions.xml
 - KIX4OTRS/Kernel/Output/HTML/DashboardTicketStatsGenericMonth.pm
 - KIX4OTRS/Kernel/Output/HTML/DashboardTicketStatsGenericWeek.pm

10.2.2 SysConfig Options

Key Name	Description
DashboardBackend###0252-TicketStats1Month	Defines the parameters for the dashboard backend. "Group" is used to restrict access to the plugin (e. g. Group: admin;group1;group2;). "Default" indicates if the plugin is enabled by default or if the user needs to enable it manually. "CacheTTLLocal" defines the cache expiration period in minutes for the plugin.
DashboardBackend###0252-TicketStats2Weeks	Defines the parameters for the dashboard backend. "Group" is used to restrict access to the plugin (e. g. Group: admin;group1;group2;). "Default" indicates if the plugin is enabled by default or if the user needs to enable it manually. "CacheTTLLocal" defines the cache expiration period in minutes for the plugin.



10.3 Dashboard Search Template Extensions

Show search templates as dashlets.

10.3.1 Implementation

- SysConfig option activates SearchTemplates to use as a dashboard extension.
 Default columns could be selected.
- User has to enable it in dashboard preferences
- Select special template via dropdown

10.3.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS DashboardExtensions.xml
 - KIX4OTRS/Kernel/Language/de KIX4OTRS.pm
 - KIX40TRS/Kernel/Modules/AgentDashboardCommon.pm
 - KIX40TRS/Kernel/Output/HTML/DashboardTicketGeneric.pm

10.3.2 SysConfig Options

Key Name	Description
DashboardBackend###0901-SearchTemplate01	Defines the parameters for the dashboard backend. Use more similar SysConfig keys to include more search templates.

10.4 Ticket-ACL - Extended Filter Conditions

- In default OTRS, the combination of many ACL does not work very well in respect to many ACLs defining PossibleProperties and PossibleActions.
 - Low prioritized ACL may prohibit a ticket action which cannot be effectively allowed by a higher prioritized ACL
 - Low prioritized ACL may prohibit a property which cannot be effectively allowed by a higher prioritized ACL
 - Therefore a subsumption of possible actions and properties is required.
 - In order to keep downwards compatibility the function can be dis-/enabled by SysConfig
- Filter attribute "DefaultSet" defines which ticket template is used and may restrict available ticket actions based on that information
- The ID of the currently selected ticket type is added to the filter group "Ticket"
- The ID and the name of the currently selected ticket queue is added to the filter group "Ticket"

10.4.1 Implementation

- · Extension of parameters passed from frontend modules to core methods
- Modification of the ticket method "TicketAcl" to implement subsumption for allowed ticket actions (PossibleActions) and impossible ticket properties (PropertiesNot)

10.4.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/System/TicketExtensionsKIX4OTRS.pm

10.4.2 SysConfig Options

Key Name	Description
Ticket::ACL-PossibleActionSubsumption	Defines whether the "Possible"-results for actions from many ACLs should be summarized, thus implementing a more modular approach to ACLs (disabled OTRS Default behavior).
Ticket::ACL-PossiblePropertiesSubsumption	Defines whether the "PossibleNot"-results for properties from

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Key Name	Description
	many ACLs should be summarized, thus implementing a more modular approach to ACLs (disabled OTRS Default behavior).

10.5 Ticket-ACL – Depending Dynamic Field Selections

In default OTRS, there is no possibility to restrict dynamic field selections depending on other selections. Due to that selections for categories and following subcategories cannot be provided safely. Depending dynamic fields also works for object reference autocomplete fields.

10.5.1 Implementation

- Limitations for available options in dynamic field selections are implemented by Ticket-ACL
- In order to set this up easily, limitations can be configured by admin frontend

10.5.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Modules/AdminDependingDynamicField.pm
 - KIX4OTRS/Kernel/Output/Standard/AdminDependingDynamicField.tt
 - KIX4OTRS/Kernel/Output/LayoutKIX4OTRS.pm
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS DependingDynamicFieldAdmin.xml
 - KIX40TRS/Kernel/System/Ticket/Acl/DependingDynamicFieldSelection.pm
 - KIX4OTRS/Kernel/System/DependingDynamicField.pm
 - KIX4OTRS/var/httpd/htdocs/skins/Agent/default/css/KIX4OTRS.DependingDynamicFields.css

10.5.2 SysConfig Options

Key Name	Description
Ticket::Acl::Module### 990_DependingDynamicFieldSelection	Ticket-ACL to enable depending dynamic fields
Frontend::Module###AdminDependingD ynamicField	Modul registration

10.6 Ticket-ACL - Multi Purpose Match-Restriction

In default OTRS, there is no way to easily set up ticket restrictions. To restrict ticket data selections depending on current settings (like used action) and selections (like ticket type and queue), you need to create a new ACL-module or a new ACL-configuration in your Config.pm. This is not very comfortable and not very flexible. The same applies to restricted actions in both customer's and agent's frontend. To use ExcludedTicketData with different packages another SysConfig key was introduced: Match::ExcludedTicketData###0001-XXX. This key is integrated in the old

10.6.1 Implementation

hash.

- Generic ACL-module to restrict possible ticket data depending on current action and current ticket data/ticket data selections
 - Complementary
 - Configurable via SysConfig-Keys
- Generic ACL-module to restrict possible actions depending on current action and current ticket data/ticket data selections
 - Complementary
 - Configurable via SysConfig-Keys

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10.6.1.1 Related Structures

a Filelist

- $\bullet \verb| KIX40TRS/Kernel/Config/Files/KIX40TRS_FrontendTicketRestrictions.xml|\\$
- KIX4OTRS/Kernel/System/Ticket/Acl/MatchActionRestrictions.pm
- KIX40TRS/Kernel/System/Ticket/Acl/MatchTicketDataRestrictions.pm

10.6.2 SysConfig Options

Key Name	Description
Ticket::Acl::Module### 802-MatchTicketDataRestrictions	Ticket-ACL to restrict some ticket data selections based on current ticket data.
Match::ExcludedTicketData::Identifier	Registers an identifier for the ticket data restrictions. Defined values are used in the following config options. Example: NoCRForCustomers
	 (prohibit ticket type "CR" in customer frontend) RestrictPrioritiesForServiceRequest (tickets of type "Service Request" can only be of priority very low, low and normal)
Match::ExcludedTicketData::ActionsMatch	Defines which ticket actions have to be restricted (agent and customer frontend is possible; regular expressions are possible). The key has to be one of the identifier (see above). The value defines restricted ticket actions and has to be filled at any time. Multiple actions can be separated by ;. Example:
	 NoCRForCustomers → [regexp]Customer.* (matches all actions in customer frontend)
	 RestrictPrioritiesForServiceRequest → [regexp].* (matches all actions)
Match::ExcludedTicketData::DataMatch	Defines ticket match properties (e.g. type:::default). The key has to be one of the identifier (see above). The value defines matching ticket data type and its values, separated by :::.
	Multiple values can be separated by ;. Split multiple match criteria by . Leave it empty for always matching.
	Example:NoCRForCustomers → ""(empty; always match)
	• RestrictPrioritiesForServiceRequest → Type:::Service Request
Match::ExcludedTicketData::DataRestricted	Defines which ticket data types have to be restricted and which values are NOT accessible. Key has to be one of the identifier (see above). Value defines ticket data type and its blacklist, separated by :::. Multiple blacklist values can be separated by ;. Split multiple ticket data restrictions by .
	Example:
	 NoCRForCustomers → Type:::CR RestrictPrioritiesForServiceRequest →
Ticket::Acl::Module### 802-MatchTicketDataRestrictions	Priority:::very high;high Ticket-ACL to restrict some ticket actions based on current ticket data.
Match::ExcludedAction	Defines which ticket actions are NOT accessible (agent and customer frontend is possible; regular expressions are possible).



Key Name	Description
	The key defines matching ticket data type and its values, separated by :::. Multiple values can be separated by ;. Split multiple match criteria by .
	The value defines action blacklist. Multiple blacklist actions can be separated by ;.
	Example:
	If ticket was closed, prohibit ticket lock functionality
	Key: State:::[regexp]closed.* e.g. closed successful, closed unsuccessful
	Value: AgentTicketLock
Match::ExcludedTicketData###0001-XXX	Defines ExcludedTicketData in further packages. Keys are ActionsMatch, DataMatch and DataRestricted.

10.7 Ticket-ACL – Processing for Merged Tickets

In default OTRS, merged tickets are handled as normal tickets. So it is possible to compose emails, add notes and change other ticket data. This could cause some confusion or double work.

10.7.1 Implementation

- ACL-module to restrict possible ticket actions for tickets of state merged and removed
 - Permitted and prohibited actions are configurable via SysConfig-Keys

10.7.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS RestrictTicketActionsOnMerged.xml
 - KIX40TRS/Kernel/System/Ticket/Acl/RestrictTicketActionsOnMerged.pm

10.7.2 SysConfig Options

-	
Key Name	Description
Ticket::Acl::Module###500-RestrictTicketActionsOnMerged	Ticket-ACL to restrict possible actions for merged tickets.
Ticket::RestrictTicketActionsOnMerged::ActionsMap ping	Defines allowed and not allowed actions for merged and removed tickets.

10.8 Ticket State Workflow

- Ticket state workflow allows to define ticket type depending state workflows and automatic actions
- · Limit available ticket states for agent and customer users
- Set type depending ticket states on ticket lock update
- Automatically set next states after follow up arrives depend on current ticket type and state
- Possible automatic actions are:
 - set next state,
 - set pending time (if next state is of pending type),
 - move to specific queue when reaching specific state
- Set default ticket state if ticket type is updated and current state is not allowed for the new ticket type – with force option
- Ticket state workflows are defined in SysConfig
- AgentTicketBulk list only those states which are common next states to all tickets which are subject to the bulk action. If there is no common next state,

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no state update is possible.

 It is possible to use extended ticket state workflow definition in additional packages

10.8.1 Implementation

- Ticket state limitations are implemented by Ticket-ACL
- Modifications in postmaster-follow-up handling
- Modifications in frontend masks to pass selected ticket type to Ticket-ACL
- · Event handler for setting ticket state and pending time after ticket type update
- Event handler for automatic move actions
- Event handler for automatic state actions
- a core ticket method (Kernel::System::Ticket::TSWFCommonNextStates) returns
 a set of possible next states for single or multiple tickets specified by a
 parameter containing an array of TicketIDs

10.8.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS TicketStateWorkflow.xml
 - KIX40TRS/Kernel/Language/de KIX40TRS.pm
 - KIX40TRS/Kernel/Modules/AgentTicketBulk.pm
 - KIX40TRS/Kernel/Modules/AgentTicketEmail.pm
 - KIX4OTRS/Kernel/Modules/AgentTicketPhone.pm
 - KIX4OTRS/Kernel/System/Ticket/TicketExtensionsKIX4OTRS.pm
 - KIX4OTRS/Kernel/System/Console/Command/Maint/Ticket/PendingCheck.pm
 - KIX4OTRSITSMIncidentProblem/Kernel/Modules/AgentTicketEmail.pm
 - KIX4OTRSITSMIncidentProblem/Kernel/Modules/AgentTicketPhone.pm
 - KIX4OTRS/Kernel/System/PostMaster/FollowUp.pm
 - KIX40TRS/Kernel/System/Ticket/Acl/TicketStateWorkflow.pm
 - KIX4OTRS/Kernel/System/Ticket/Event/TicketStateWorkflowAutomaticStateAction.pm
 - KIX4OTRS/Kernel/System/Ticket/Event/TicketStateWorkflowForceState.pm
 - KIX4OTRS/Kernel/System/Ticket/Event/TicketStateWorkflowTypeUpdate.pm

10.8.2 SysConfig Options

Key Name	Description
Ticket::Acl::Module###950_TicketStateWorkflow	Ticket-ACL to limit available ticket states
TicketStateWorkflow	Configuration for the ticket state workflow, to define possible next states depending on ticket type and current state:
	 Key must be written in following syntax "<tickettype>:::<currentstatename>" (e.g. "Incident:::new" if you want to define possible next states for a ticket of type "Incident" in state "new"</currentstatename></tickettype>
	 Value consist of comma separated state names of possible next states – you may use placeholders as _ANY_, _PREVIOUS_ and _NONE_
TicketStateWorkflow:: DefaultTicketState	Configuration for default ticket states depending on ticket type – relevant for AgentTicketPhone and -Email
TicketStateWorkflow:: DefaultTicketQueue	Configuration of default ticket queues depending on ticket type – relevant for AgentTicketPhone and -Email
TicketStateWorkflow:: PostmasterFollowUpState	Ticket states which are set after a follow up is received
	NOTICE: if this configuration is not done properly a follow up may not cause a reopen of the ticket, even though this is configured in your queue configuration
TicketStateWorkflow:: PostmasterFollowUpCheckCustomerIDFrom	Checks if the sender of a message is available in the OTRS' customer user database and has the same CustomerID as set on the ticket. If not the email is considered as "email-internal" causing this message being invisible to the customer user.



Key Name	Description
	This is a more restrictive way to classify incoming emails as visible for the customer user than the OTRS-default behavior – which is disabled if this option is enabled.
TicketStateWorkflow:: PostmasterFollowUpCheckAgentFrom	Checks if the sender of a message is available in the OTRS' agent database. If so the email sender is considered as "agent" causing this message being handled as an outgoing email.
Ticket::Frontend::AgentTicketPhone###State Type	Must be configured if you allow ticket states which are not available by the ticket state types in this mask
Ticket::Frontend::AgentTicketEmail###StateT ype	Must be configured if you allow ticket states which are not available by the ticket state types in this mask
Ticket::EventModulePost### 700-TicketStateWorkflowTypeUpdate	Update ticket state if required or forced after ticket type update
TicketStateWorkflow::ForceDefaultTicketState	Configure this if you want to force a ticket state update after ticket type update
Ticket::EventModulePost### 701-TicketStateWorkflowAutomaticStateAction	Executes ticket actions caused by ticket state updates – currently limited to queue move and state set actions
TicketStateWorkflowAutomaticStateAction## #QueueMove	Moves ticket automatically to a pre-configured queue if ticket state is reached. You may use placeholder for the queue name, e.g. <otrs_dynamicfield></otrs_dynamicfield>
TicketStateWorkflowAutomaticStateAction## #NextStateSet	Allows the automatic setting of a next state when a special state has been reached, thus implementing automatic transitions
TicketStateWorkflowAutomaticStateAction## #NextTypeSet	Allows the automatic setting of a ticket type when a special state has been reached
TicketStateWorkflowAutomaticStateAction## #NextStatePendingOffset	If the automatically set state is a pending state, the pending offset time can be defined here (business minutes). Key must be the same as in NextStateSet.
TicketStateWorkflowAutomaticStateAction## #FallbackOnErrorNote	Some note that will be added to the ticket if the configured move target (queue) does not exist
TicketStateWorkflowAutomaticStateAction## #FallbackOnErrorQueue	Some default queue to which the ticket will be moved, if the configured move target (queue) does not exist
TicketStateWorkflowAutomaticStateAction## #FallbackOnErrorState	Some default state to which the ticket will be set, if the configured move target (queue) does not exist
TicketStateWorkflowExtension###1000-Test	Possible extended state workflow definition - use like default
TicketStateWorkflowExtension:: DefaultTicketState###1000-Test	Possible extended state workflow definition - use like default
TicketStateWorkflowExtension:: DefaultTicketQueue###1000-Test	Possible extended state workflow definition - use like default
TicketStateWorkflowExtension:: PostmasterFollowUpState###1000-Test	Possible extended state workflow definition - use like default
TicketStateWorkflowExtension::ForceDefaultTicketState###1000-Test	Possible extended state workflow definition - use like default
TicketStateWorkflowAutomaticStateActionExtensions###1000-Test	Possible extended automatic state action - use like default

10.9 Automatic Queue Assignment by Service Selection

- Allow to configure an assigned queue to every service
- If the service on an existing ticket is updated and this service has a configured queue, the ticket should automatically move to that queue unless an exclusion based on ticket type and ticket state is configured
- The assigned queues should be set automatically in all ticket creation masks in



the agent frontend

 If service based queue assignment is active a manual queue update must be prevented by a Ticket-ACL

10.9.1 Implementation

- The service object needs a new preference based on selection values
 Sources for selections are queues, ticket types or general catalog
- A ticket event triggered by "ServiceUpdate" checks the service that has been set and existing exclusions and moves the ticket to the corresponding queue
- Service selections in masks AgentTicketPhone, AgentTicketEmail and ActionCommon/TabActionCommon based masks triggers an AJAX-update on the queue selection field

10.9.1.1 Related Structures

a Filelist

- KIX4OTRS/Kernel/Config/Files/KIX4OTRS ServiceAdoptions.xml
- KIX4OTRS/Kernel/Modules/AgentTicketEmail.pm
- KIX40TRS/Kernel/Modules/AgentTicketPhone.pm
- $\bullet \quad \texttt{KIX4OTRS/Kernel/Output/HTML/ServicePreferencesSelection.pm}$
- KIX4OTRS/Kernel/System/Ticket/Acl/HideAgentTicketMoveServiceQueueAssignment.pm
- KIX4OTRS/Kernel/System/Ticket/Event/TicketServiceQueueAssignment.pm
- KIX4OTRSITSMIncidentProblem/Kernel/Modules/AgentTicketEmail.pm
- KIX4OTRSITSMIncidentProblem/Kernel/Modules/AgentTicketPhone.pm
- KIX4OTRSITSMIncidentProblem/Kernel/Modules/AgentTicketActionCommon.pm
- KIX4OTRSITSMIncidentProblem/Kernel/Modules/AgentTicketTabActionCommon.pm
- var/httpd/htdocs/js/Core.KIX4OTRS.js

10.9.2 SysConfig Options

Key Name	Description
ServicePreferences###AssignedQueue	Registration for the additional service preference based on queue selection
Ticket::EventModulePost### 300-TicketServiceQueueAssignment	Registration for the ticket event for the autom. Service-2-Queue-assignment
Ticket::Acl::Module###890-HideAgentTicketMove	Ticket-ACL to hides the move action if autom. Service-2-Queue-assignment is enabled
Ticket::ServiceQueueAssignment### TypeStateExclusions	Contains automatic-move-exclusions as key value pairs. All pairs are sequentially matched until one rule delivers a true value (that is not null/0). Therefore the key consists of three parts separated by ":::". The first part defines the priority of the rule by an alphanumeric order. The second part defines a regular expression that may match the ticket type name of the ticket, while the third part may match the current ticket state name – e.g.
	• (000):::(TypeRegexp):::(StateRegexp) => 1
	• (000):::(.*):::(.*) => 1
	→ sets an exclusion for every ticket

10.10 Service Selection - Always Offer Default Services

If a customer contact is not known in any customer data backend, there will not be any service offered for selction. Although some of the services might be default services. If a customer contact is known in a customer data backend AND this customer has individually assigned services, no further default services will not be offered for selection.

10.10.1 Implementation

Extended agent's ticket processing masks to show default services for not

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known customer contacts

- Extended frontend module AgentTicketActionCommon
- Extended frontend module AgentTicketEmail
- Extended frontend module AgentTicketPhone
- Subsumption of default and individually assigned services
 - Extended service core module to support subsumption of individual and default services for given customers
 - Configurable via SysConfig

10.10.1.1 Related Structures

- a Filelist
 - KIX40TRS/Kernel/Config/Files/KIX40TRS ServiceAdoptions.xml
 - KIX40TRS/Kernel/Modules/AgentTicketActionCommon.pm
 - KIX40TRS/Kernel/Modules/AgentTicketEmail.pm
 - KIX40TRS/Kernel/Modules/AgentTicketPhone.pm
 - KIX4OTRS/Kernel/System/Service.pm

10.10.2 SysConfig Options

Key Name	Description
Service::DefaultServices::ForceShow	Choose if default services will be shown in addition to customers individually assigned services.

10.11 SLA-Disabling Ticket Properties

- Depending on the current ticket properties an SLA-destination time may be
 postponed or not necessarily be met. For instance some situations require a
 feedback from the customer user in order to continue work. The time spent
 waiting for some feedback should not be counted to the solution time of the
 ticket, instead the SLA-solution time is set to a value far in the future, the
 duration of time spent waiting for a response is also not counted as solution
 time
- Configured ticket states:
 - If a ticket reaches a specified state, the time which is spent in this state must not be added to the allowed SLA-solution time
- SLA-free ticket types:
 - Disables SLA-calculation for specified ticket types
- Start SLA at defined date:
 - Start SLA-times not with ticket creation but with time defined in some freetime field

10.11.1 Implementation

- Override default OTRS-function for SLA-calculation depending on configuration parameters
 - Kernel::System::Ticket:: TicketGetFirstResponse
 - Kernel::System::Ticket::TicketEscalationIndexBuild
- New method the get non-escalation relevant business time (e.g. business time spent to solve the ticket - duration between creation and first close of ticket minus business time spent in non-SLA-relevant ticket states)
 - GetTotalNonEscalationRelevantBusinessTime
- Displays a hint in agents and customers interfaces to show disabled SLA-times

10.11.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS Escalation.xml
 - KIX4OTRS/Kernel/System/Ticket/TicketExtensionsKIX4OTRS.pm
 - var/httpd/htdocs/js/Core.KIX40TRS.TicketEscalation.js



10.11.2 SysConfig Options

Key Name	Description
Ticket::EventModulePost###900-EscalationIndex	Updates the ticket escalation index after a ticket attribute got updated.
	 Module => Kernel::System::Ticket::Event::TicketEscalationIndex
	• Event => (
	 TicketSLAUpdate
	 TicketQueueUpdate
	 TicketStateUpdate
	 TicketCreate
	∘ ArticleCreate
	 TicketTypeUpdate)
Ticket::ResponsetimeSetByPhoneTicket	Disables response time SLA, if the newly created ticket is a phone ticket.
Ticket::ResponsetimeSetByPhoneTicket:: OnlyForTheseTicketTypes	Restricts the ResponsetimeSetByPhoneTicket to these ticket types.
Ticket::ResponsetimeSetByAutoReply	Disables response time SLA, if an auto reply was sent for this ticket.
Ticket::ResponsetimeSetByAutoReply:: OnlyForTheseTicketTypes	Restricts the ResponsetimeSetByAutoReply to these ticket types.
Ticket::EscalationDisabled::RelevantStates	Defines state names for which the SLA-times are disabled. Is a ticket set to on of these states, the SLA-destination times are set to hold. The time a ticket stays in this state is excluded from the SLA-times.
Ticket::EscalationDisabled::RelevantTypes	Defines ticket type names for which the SLA-calculation time is disabled.
Ticket::EscalationDisabled::RelevantQueues	Defines queue names for which the SLA-calculation time is disabled.
Ticket::EscalationDelayed::FreeTimeField	Defines a dynamic field of type date/time which is used as start time for solution SLA-computation rather than ticket creation time, thus allowing to start SLA-countdown with begin of customer desired times.
	Example:
	 DynamicField => DynamicFleldName
	∘ Index =>1
	"Index" is only <u>fallback</u> for old configuration upgraded from OTRS 3.1 or previous to be workable. In this case dynamic field named TicketFreeTime <index> is used.</index>
Loader::Agent::CommonJS### 901-KIX4OTRSTicketEscalation	List of JS files to always be loaded for the agent interface. Shows the hint in the agents and customers interfaces.
	Core.KIX4OTRS.TicketEscalation.js

10.12 Type-Depending Responsible User

The responsible user can be set automatically if the first owner is assigned to a ticket. This extension allows to set the responsible automatically depending on the ticket type (if option chosen)

10.12.1 Implementation

- Event handler to set the responsible user when ticket is created, owner is updated or ticket state is set
- Allow to set type depending responsible only if no responsible is not specified,



to force responsible set or to set owner if responsible not specified

10.12.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS ResponsibleAutoSetPerTicketType.xml
 - KIX40TRS/Kernel/System/Ticket/Event/ResponsibleAutoSetPerTickettype.pm

10.12.2 SysConfig Options

Key Name	Description
Ticket::EventModulePost### 800-ResponsibleAutoSetPerTickettype	Dis-/enables setting of ticket responsible - define ticket type depending responsible users as additional entries with following syntax (key => value)
	TicketType:::<typename> => <userlogin></userlogin></typename>
Ticket::ResponsibleAutoSetPerTickettype	If the ticket responsible feature and auto-set-event is enabled, set responsible on ticket creation or state update depending on configuration:
	Force ticket type responsible
	Set ticket type responsible if not specified
	Set owner, if responsible not specified
	• Disabled

10.13 Change State on Queue Move

Change ticket state on queue move depending on selected ticket type

10.13.1 Implementation

- Use event handler to set the ticket state when queue changed
- Set ticket type and queue via SysConfig

10.13.1.1 Related Structures

- a Filelist
 - $\bullet \verb| KIX4OTRS/Kernel/Config/Files/KIX4OTRS_TicketStateWorkflow.xml|\\$
 - $\bullet \quad \texttt{KIX4OTRS/Kernel/System/Ticket/Event/TicketQueueMoveWorkflowState.pm}$

10.13.2 SysConfig Options

Key Name	Description
Ticket::EventModulePost###920-TicketQueueMoveWorkflowState	Dis-/enables event-module
Ticket::TicketQueueMoveWorkflowState	Define ticket type and queue as additional entries with following syntax (key => value)
	 Queue :::TicketType => State

10.14 Change Tickettype on Queue Move

Change ticket type on queue move depending on selected ticket type

10.14.1 Implementation

- Use event handler to set the ticket type when queue changed
- Set ticket type and queue via SysConfig

10.14.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS_TicketStateWorkflow.xml
 - KIX4OTRS/Kernel/System/Ticket/Event/TicketQueueMoveWorkflowTickettype.pm



10.14.2 SysConfig Options

Key Name	Description
Ticket::EventModulePost###920-TicketQueueMov eWorkflowState	Dis-/enables event-module
Ticket::TicketQueueMoveWorkflowState	Define ticket type and queue as additional entries with following syntax (key => value)
	 Queue :::TicketType (old) => TicketType (new)

10.15 Change State on Lock / Unlock

Change ticket state on lock or unlock depending on selected ticket type

10.15.1 Implementation

- Use event handler to set the ticket state when ticket locked or unlocked
- Define some default states after lock or unlock
- Defined some states which should no be overwritten

10.15.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS TicketStateWorkflow.xml
 - KIX40TRS/Kernel/System/Ticket/Event/TicketStateAutoUpdate.pm

10.15.2 SysConfig Options

Key Name	Description
Ticket::EventModulePost###900-TicketStateAutoUpdate	Dis-/enables event-module
TicketStateAutoUpdate###NonOverridableTicketStateOnUnlock	Defines ticket states which should not be overwritten on unlock
TicketStateAutoUpdate###NonOverridableTicketStateOnLock	Defines ticket states which should not be overwritten on lock
TicketStateAutoUpdate###DefaultTicketStateOnUnlock	Defines default ticket states which has to be set after unlock
TicketStateAutoUpdate###DefaultTicketStateOnLock	Defines default ticket states which has to be set after lock

10.16 Unlock Ticket after Reaching Defined Ticket State

Unlock ticket after reaching a defined ticket state

10.16.1 Implementation

- Use event handler to unlock the ticket when defined ticket state reached
- Set ticket type and states via SysConfig

10.16.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS TicketStateWorkflow.xml
 - KIX40TRS/Kernel/System/Ticket/Event/TicketUnlockOnStateUpdate.pm



10.16.2 SysConfig Options

Key Name	Description
Ticket::EventModulePost###900-TicketUnlockOnStateUpdate	Dis-/enables event-module
TicketUnlockOnStateUpdate###ValidStates	Defines which state will unlock the ticket.
	 TicketType => States (separated by ,)

10.17 State Update after Answer on Closed Ticket

Answering to a closed ticket could cause a state update like used in PostMasterFollowUp

10.17.1 Implementation

- Create event to trigger state update after answering to a closed / pending ticket
- no state change will be done, if a manual state change is allowed in CustomerTicketZoom (otherwise the config would be contradictory)

10.17.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS TicketStateWorkflow.xml
 - KIX40TRS/Kernel/System/Ticket/Event/StateUpdateOnWebrequestFollowUp.pm

10.17.2 SysConfig Options

Key Name	Description
Ticket::EventModulePost###701-StateUpdateOnW ebrequestFollowUp	Defines the event and the used module

10.18 FAQ-Workflow

Need for a workflow to create a FAQ-article directly from a new ticket article

10.18.1 Implementation

- · Ticket event module to create FAQ-article
- Article dynamic field created as the trigger field for the FAQ-workflow
- FAQ-Workflow configurable via SysConfig

10.18.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS FAQExtensions.xml
 - KIX4OTRS/Kernel/System/Ticket/Event/CreateFAQEntry.pm

10.18.2 SysConfig Options

Key Name	Description
Ticket::EventModulePost###200-CreateFAQEntry	Registration for the ticket event module to automatically create a FAQ-entry from an article
FAQWorkflow::Basic	Basic configuration for automatically created FAQ-entries
FAQWorkflow::CreateLink	Defines if the new FAQ-article is linked to the source ticket
FAQWorkflow::ResetTriggerFlag	Defines if the trigger flag at the source ticket/article will be reseted after creation of the FAQ-entry



10.19 Quick-Ticket Templates for Agent Users

In default OTRS there is no easy way to configure quick-ticket templates for agents. It is possible to define new navigation bar entries with predefined ticket content. This is not very comfortable. It should be possible to define ticket templates and provide an acceptable presentation of those templates.

10.19.1 Implementation

- Extended agent's ticket masks to provide quick-ticket templates
 - Configurable via admin frontend
 - New ticket mask to show all configured quick-ticket templates and to allow a selection.

10.19.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS QuickTicket.xml
 - KIX40TRS/Kernel/Language/de KIX40TRS.pm
 - KIX40TRS/Kernel/Modules/AgentTicketPhone.pm
 - KIX4OTRS/Kernel/Modules/AgentTicketPhoneQuick.pm
 - KIX4OTRS/Kernel/Modules/AgentTicketEmail.pm
 - KIX40TRS/Kernel/Modules/AgentTicketEmailQuick.pm
 - KIX4OTRS/Kernel/Modules/BaseTicketTemplateHandler.pm
 - KIX4OTRS/Kernel/Output/HTML/Standard/AgentTicketEmail.tt
 - KIX4OTRS/Kernel/Output/HTML/Standard/AgentTicketPhone.tt

10.19.2 SysConfig Options

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Key Name	Description
Frontend::Module###AgentTicketEmailQuick	Frontend module registration for the Quickticket via AgentTicketPhone
Ticket::Frontend::AgentTicketEmailQuick###ArticleType	Sets the default article type for new email quick tickets
Frontend::Module###AgentTicketPhoneQuick	Frontend module registration for the Quickticket via AgentTicketPhone
Ticket::Frontend::AgentTicketPhoneQuick###ArticleType	Sets the default article type for new phone quick tickets
Ticket::QuickTicketByDefaultSet::Selection###AgentTicketPhone	Defines which quick ticket templates are available in AgentTicketEmail
Ticket::QuickTicketByDefaultSet::Selection###AgentTicketEmail	Defines which quick ticket templates are available in AgentTicketEmail

10.20 Quick-Ticket Templates for Customer Users

In default OTRS there is no easy way to configure quick-ticket templates for customer users. It is possible to define new navigation bar entries with predefined ticket content. This is not very comfortable. It should be possible to define ticket templates and provide an acceptable presentation of those templates.

10.20.1 Implementation

- · Extended customer's ticket masks to provide quick-ticket templates
- · Configurable via admin frontend
- New ticket mask to show all configured quick-ticket templates and to allow a selection.

10.20.1.1 Related Structures

- a Filelist
 - KIX40TRS/Kernel/Language/de KIX40TRS.pm



- KIX4OTRS/Kernel/Modules/BaseTicketTemplateHandler.pm
- KIX4OTRS/Kernel/Modules/CustomerTicketMessage.pm
- KIX40TRS/Kernel/Modules/CustomerTicketMessageQuickSelection.pm
- KIX4OTRS/Kernel/Output/HTML/Standard/CustomerTicketMessageQuickSelection.tt

10.20.2 SysConfig Options

Key Name	Description
CustomerFrontend::Module### CustomerTicketMessageQuickSelection	Frontend module registration for the customer interface.
Ticket::QuickTicketByDefaultSet::Customer### TemplateRegistration	Defines the internal name of the template (value) and it's label (key).
Ticket::QuickTicketByDefaultSet::Customer### UserAttributeRestriction	Defines restrictions for the viewability of templates for customer users.
Ticket::QuickTicketByDefaultSet::Customer### Description	Defines a one-line description for each template.

10.21 Extended Template Generator

- Additional placeholder "<OTRS_ARTICLE_*>" and "<OTRS_ARTICLE_DATA_*>" which refers to properties of the given article
- Additional placeholder "<OTRS_FIRST_*>" which refers to properties of the very first article of the ticket created by the customer
 - Behavior similar to <OTRS_CUSTOMER_*> which refer to the last by customer created article
- · Translation of OTRS-tags

10.21.1 Implementation

- Modification of template generator to evaluate <OTRS_ARTICLE_*>-tags
- Modification of template generator to evaluate <OTRS ARTICLE DATA *>-tags
- Modification of template generator to evaluate <OTRS FIRST *>-tags
- · Modification of template generator to translate OTRS-tags

10.21.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/System/TemplateGenerator.pm

10.21.2 SysConfig Options

Key Name	Description
n.a.	n.a.

10.22 Extended Notifications for Ticket Escalations

In default OTRS, ticket escalations will be shown as a notification at top of the agents interface. Considered tickets need to exceed at least one SLA-time, no matter if the agent subscribed the ticket's queue or not.

10.22.1 Implementation

 Extended existing notification module to restrict considered tickets on agent's custom gueues only.

10.22.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS_Escalation.xml
 - KIX4OTRS/Kernel/Output/NotificationAgentTicketEscalation.pm



10.22.2 SysConfig Options

Key Name	Description
Frontend::NotifyModule###5-Ticket::TicketEscalation	Extended configuration-options to restrict shown ticket escalations to agents custom queues only

10.23 Text Modules

- More general, more modular approach than email answer templates
- · Text modules can define
 - Article content
 - Article subject
- Text modules can use placeholders as known from email templates
- Allows to select multiple text modules to create a ticket note-, phone call-, web-request or email-article
- Depending on selected or currently set ticket type and queue as well as which frontend (customer or agent) is used, available text modules are shown in the KIXSideBar for selection
- Separate admin area to manage text modules
 - Add, edit and remove text templates
 - Download text modules as XML
 - Upload text modules as XML
- Use categories to sort text modules → create a treeview

10.23.1 Implementation

- New core module for TextModules
- New admin management frontend module for creating, viewing, listing, editing down- and uploading text modules
- KIXSideBar to allow selection of text modules depending on ticket type and queue (selection and current values) and view (plain or treeview)
- New text module categories every text module could be assigned to a categorie

10.23.1.1 Related Structures

- a Filelist
- KIX4OTRS/Kernel/Config/Files/KIX4OTRS CustomerFrontendAdoptions.xml
- KIX4OTRS/Kernel/Config/Files/KIX4OTRS KIXSidebar.xml
- KIX4OTRS/Kernel/Config/Files/KIX4OTRS_TextModules.xml
- KIX40TRS/Kernel/Language/de KIX40TRS.pm
- KIX4OTRS/Kernel/Language/de_TextModules.pm
- KIX40TRS/Kernel/Modules/AdminQueueTextModules.pm
- KIX4OTRS/Kernel/Modules/AdminTextModules.pm
- KIX40TRS/Kernel/Modules/CustomerTicketMessage.pm
- KIX40TRS/Kernel/Modules/CustomerTicketZoom.pm
- KIX40TRS/Kernel/Modules/TextModuleAJAXHandler.pm
 KIX40TRS/Kernel/Modules/AdminTextModuleCategories.pm
- KIX40TRS/Kernel/Output/HTML/Standard/AdminQueueTextModules.tt
- KIX4OTRS/Kernel/Output/HTML/Standard/AdminTextModules.tt
- KIX4OTRS/Kernel/Output/HTML/Standard/AgentKIXSidebarTextModules.tt
- KIX4OTRS/Kernel/Output/HTML/Standard/CustomerKIXSidebarTextModules.tt
- KIX4OTRS/Kernel/Output/HTML/Standard/CustomerTicketMessage.tt
- KIX4OTRS/Kernel/Output/HTML/Standard/CustomerTicketZoom.tt
- KIX4OTRS/Kernel/Output/HTML/Standard/TextModulesSelection.tt
- KIX4OTRS/Kernel/Output/HTML/Standard/AdminTextModuleCategories.tt
- KIX40TRS/Kernel/Output/HTML/KIXSidebarTextModules.pm
- KIX40TRS/Kernel/Output/HTML/LayoutKIX40TRS.pm
- KIX4OTRS/Kernel/System/TextModule.pm



- var/httpd/htdocs/js/Core.AJAX.js
- var/httpd/htdocs/js/Core.KIX40TRS.Form.Validate.js
- var/httpd/htdocs/js/Core.KIX4OTRS.TextModules.js
- var/httpd/htdocs/skins/Customer/KIX40TRS/css/Core.Default.css
- var/httpd/htdocs/skins/Customer/KIX4OTRS/css/Core.PageLayout.css
- var/httpd/htdocs/skins/Customer/KIX4OTRS/css/Core.Widget.css
- var/httpd/htdocs/skins/Customer/KIX4OTRS/img/toggle_arrow.png
- var/httpd/htdocs/skins/Customer/KIX4OTRS/img/widget_bg_100.png
- var/httpd/htdocs/skins/Agent/default/img/tm_category.png
- var/packagesetup/KIX40TRS.pm
- KIX4OTRS.sopm

b Table/Table Columns

- kix text module
 - $^{\circ}$ id
 - o name
 - o text
 - o language
 - ° keywords
 - o comment1
 - ° comment2
 - subject
 - f_agent
 - f_customer f_public

 - valid_id
 - ° create_time
 - create_by
 - ° change_time
 - o change by
- kix text object link
 - o text module id
 - o object id
 - o object-type
 - ° create_time
 - create_by
 - change time
 - 0 change by
- kix text module category
 - ° id
 - ° name
 - ° create_time
 - o create by
 - o change time
 - o change by

10.23.2 SysConfig Options

, , ,		
Key Name	Description	
Frontend::KIXSidebarBackend###TextModules	Parameters for the KIXSidebar <u>backend</u> TextModules.	
CustomerFrontend::KIXSidebarBackend###TextModules	Parameters for the KIXSidebar <u>backend</u> TextModules.	
Ticket:: <u>Frontend</u> ::AdminQuickTicketConfigurator::KI XSidebarBackend###0200-TextModules	Parameters for the KIXSidebar <u>backend</u> TextModules.	
Frontend::Module###TextModuleAJAXHandler	Frontend module registration for the TextModuleAJAXHandler object.	
Frontend::Module###AdminTextModules	Frontend module registration for the AdminTextModules object in the admin interface.	
Frontend::Module###AdminQueueTextModules	Frontend module registration for the AdminQueueTextModules object in the admin area.	
Loader::Agent::Common S###101-KIX4OTRSText	Provides javascript functions needed for text module	



Key Name	Description
Modules	selections.
Loader::Customer::CommonJS###101-KIX4OTRST extModules	Provides javascript functions needed for text module selections.
TextModule::LimitShownEntries	Default value for maximum number of entries shown in admin's TextModule overview.
TextModule::XMLUploadDoNotAdd	Default value for Do-Not-Add-Flag in admin's XML-textmodule upload.
TextModule::LanguageQueueMatching	If activated queues offered for use in EditView are limited by the selected language (language short identifier must be contained as subqueuename in complete queue name).
TextModule::CustomModules	Additional and extended TextModule methods.
AdminResponsesUploads::TextModuleDefaults	Default values for uploaded TextModules.
Ticket::Frontend::CustomerTicketMessage### ResetBody	Defines if the messages body is reseted after ticket type or queue changed. Relevant for automatic loading of a single text module.
Loader::Customer::CommonCSS###100-KIX4OTR S	Dis-/enables needed stylesheet information for text module seletions
TextModuleCategory::LimitShownEntries	Limit shown categories in admin view
Loader::Agent::CommonCSS###999-TextModuleC ategories	Dis-/enables needed stylesheet information for text module category seletions
Frontend::Module###AdminTextModuleCategories	Frontend module registration for the AdminTextModuleCategories object.

10.24 KIXSideBar - Tools for Ticket Processing

KIXSideBar allows to access additional information and tools in most ticket processing masks.

10.24.1 Implementation

- remove customer info block from AgentTicketPhone, and -Email
- · add KIXSidebar-handling to all relevant frontend modules and tt-files

10.24.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS KIXSidebar.xml
 - KIX40TRS/Kernel/Language/de KIX40TRS.pm
 - KIX40TRS/Kernel/Modules/AgentTicketActionCommon.pm
 - KIX40TRS/Kernel/Modules/AgentTicketCompose.pm
 - KIX40TRS/Kernel/Modules/AgentTicketCustomer.pm
 - KIX4OTRS/Kernel/Modules/AgentTicketEmail.pm
 - KIX4OTRS/Kernel/Modules/AgentTicketForward.pm
 - KIX4OTRS/Kernel/Modules/AgentTicketPhone.pm
 - KIX4OTRS/Kernel/Modules/AgentTicketPhoneOutbound.pm
 - KIX4OTRS/Kernel/Modules/AgentTicketZoomTabActionCommon.pm
 - KIX4OTRS/Kernel/Modules/CustomerTicketMessage.pm
 - KIX4OTRS/Kernel/Output/HTML/Standard/AgentTicketActionCommon.tt
 - $\bullet \quad \texttt{KIX4OTRS/Kernel/Output/HTML/Standard/AgentTicketCompose.tt}\\$
 - $\bullet \quad \texttt{KIX4OTRS/Kernel/Output/HTML/Standard/AgentTicketCustomer.tt} \\$
 - KIX4OTRS/Kernel/Output/HTML/Standard/AgentTicketEmail.ttKIX4OTRS/Kernel/Output/HTML/Standard/AgentTicketForward.tt
 - KIX40TRS/Kernel/Output/HTML/Standard/AgentTicketPhone.tt
 - KIX4OTRS/Kernel/Output/HTML/Standard/AgentTicketPhoneOutbound.tt
 - KIX4OTRS/Kernel/Output/HTML/Standard/AgentTicketZoomTabActionCommon.tt
 - KIX40TRS/Kernel/Output/HTML/Standard/CustomerTicketMessage.tt
 - KIX40TRS/Kernel/Output/HTML/LayoutKIX40TRS.pm
 - KIX40TRSITSMConfigManagement/Kernel/Modules/CustomerTicketMessage.pm



- KIX4OTRSITSMConfigManagement/Kernel/Output/HTML/Standard/CustomerTicketMessage.tt
- KIX4OTRSITSMIncidentProblem/Kernel/Modules/AgentTicketActionCommon.pm
- KIX4OTRSITSMIncidentProblem/Kernel/Modules/AgentTicketEmail.pm
- KIX4OTRSITSMIncidentProblem/Kernel/Modules/AgentTicketPhone.pm
- KIX4OTRSITSMIncidentProblem/Kernel/Modules/AgentTicketZoomTabActionCommon.pm
- KIX4OTRSITSMIncidentProblem/Kernel/Output/HTML/Standard/AgentTicketActionCommon.t t
- KIX4OTRSITSMIncidentProblem/Kernel/Output/HTML/Standard/AgentTicketEmail.tt
- KIX4OTRSITSMIncidentProblem/Kernel/Output/HTML/Standard/AgentTicketPhone.tt

10.24.2 SysConfig Options

Key Name	Description
n.a.	no general KIXSidebar configuration – but KIXSidebar-module-specific configuration

10.25 KIXSideBar - Text Module Selection

The side bar plugin shows all available text modules for creation of article content. See Text Modules for more information

10.26 KIXSideBar - Linked Person Selection

Allows to select linked persons for to-, Cc- or Bcc-receipient selection in email masks. Allows to select linked persons for a notification message in phone- or note creating masks. See Linked Persons for more information

10.27 KIXSideBar - Customer Info

This customer info sidebar extends the original OTRS customer info box to display contact information related to the ticket when the user works in the ticket zoom mask. Depending on the user's preferences it will list all contacts containd in the To, Cc and Bcc fields of the currently selected article or all linked person contacts. It allows to display contact information in almost any ticket action mask. Outside of the ticket zoom mask, it will only display the information of the ticket's customer user.

10.27.1 Implementation

- Implement a KIXSideBar plugin that displays the information for a given customer user
 - Configurable layout for shown customer data
 - Pop up to show extended customer data
- Removed the common customer information box from AgentTicketPhone and AgentTicketEmail

10.27.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS KIXSidebar.xml
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS PreferencesExtensions.xml
 - KIX40TRS/Kernel/Modules/AgentCustomerSearch.pm
 - $\bullet \quad \texttt{KIX4OTRS/Kernel/Modules/KIXSidebarCustomerInfoAJAXHandler.pm}$
 - KIX40TRS/Kernel/Output/HTML/Standard/AgentCustomerTableView.tt
 - KIX4OTRS/Kernel/Output/HTML/Standard/AgentTicket*.tt
 - KIX4OTRS/Kernel/Output/HTML/KIXSidebarCustomerInfo.pm
 - KIX40TRS/Kernel/Output/HTML/LayoutKIX40TRS.pm
 - KIX4OTRS/Kernel/Output/HTML/Standard/AgentKIXSidebarCustomerInfo.tt
 - var/httpd/htdocs/js/Core.Agent.CustomerSearch.js
 - var/httpd/htdocs/js/Core.KIX4OTRS.CustomerDetails.js



10.27.2 SysConfig Options

Key Name	Description
DefaultCustomerInfoString	Customer data information string that will be used to show customer data if no specific presentation is defined in the relevant customer data backend.
CustomerDataKeys	Defines which customer user data are displayed in the order specified in the customer data details presentation (shown as a pop up).
Loader::Agent::CommonJS### 110-KIX4OTRSCustomerDetails	Provides javascript functions needed to show customer information and data
Frontend::KIXSidebarBackend###CustomerInfo	Activates and integrates the customer info block as a KIX sidebar module in agents ticket processing masks
PreferencesGroups###KIXSidebarCustomerEmailS election	Allows to select the behaviour of the contact selection box. Here you can select whether all contacts of the current article show be selectable or all linked persons of the current ticket.

10.28 KIXSideBar - TicketInfo Extensions

The SideBar shows QueueName as a link for quick access to other tickets in TicketQueue. More information is shown for owner and responsible using a magnifier.

10.28.1 Implementation

- Extended TicketExtensionsKIX4OTRS for method creating QueueLink (sub TicketQueueLinkGet) Changed label for Queue in AgentTicketZoom.xml
- SysConfig key added to select shown attributes and extended responsible and owner display function

10.28.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/AgentTicketZoom.xml
 - KIX4OTRS/Kernel/System/Ticket/TicketExtensionsKIX4OTRS.pm

10.28.2 SysConfig Options

Key Name	Description
Ticket::Frontend::AgentTicketZoom###TicketData Label	Defines labels for internal ticket attribute names.

10.29 KIXSideBar - Customer Assigned Config Item

Allows to select customer assigned config items to link them with the ticket. Allows to display customer assigned config intems in almost any ticket action mask. View could be restricted by setting column, deployment state and incident state by SysConfig key. User could select class and filter attributes to limit shown items.

10.29.1 Implementation

- · New KIXSidebar modul created
- KIXSidebar-handling added to all relevant frontend modules
- · SysConfig keys added to restrict an configure the view
- Selection added to restrict class
- Dialog added to set filter attributes
- Some javascript added to provide filter functionality



10.29.1.1 Related Structures

a Filelist

- KIX40TRS/Kernel/Config/Files/KIX40TRS KIXSidebar.xml
- KIX4OTRS/Kernel/Language/de KIX4OTRSITSMConfigManagement.pm
- KIX4OTRSConfigManagement/Kernel/Config/Files/KIX4OTRS ConfigItemLink.xml
- KIX4OTRSConfigManagement/Kernel/Output/HTML/LayoutKIX4OTRSITSMConfigManagement.pm
- KIX4OTRS/Kernel/Language/de KIX4OTRS.pm
- KIX40TRS/Kernel/Modules/KIXSidebarLinkedCIsAJAXHandler.pm
- KIX40TRS/Kernel/Output/HTML/KIXSidebarLinkedCIs.pm
- KIX40TRS/Kernel/Output/HTML/LayoutKIX40TRS.pm
- KIX4OTRS/Kernel/Output/HTML/Standard/AgentKIXSidebarLinkedCIs.tt
- KIX40TRS/Kernel/Output/HTML/Standard/KIXSideBarAssignedConfigItemList.tt
- var/httpd/htdocs/js/Core.Agent.CustomerSearch.js

10.29.2 SysConfig Options

Key Name	Description
Ticket::Frontend:: <frontendmodule>::KIXSidebarBackend###0400-LinkedCIs</frontendmodule>	Activates and integrates the customer assigned config item selection as a KIX sidebar module in <frontendmodule> mask</frontendmodule>
Ticket::CustomerFrontend::CustomerTicketMessage:: KIXSidebarBackend###0400-LinkedCls	Activates and integrates the customer assigned config item selection as a KIX sidebar module in CustomerTicketMessage mask
Frontend::Module###KIXSidebarLinkedClsAJAXHandler	Activates and integrates the AJAXHandler in agenten frontend
CustomerFrontend::Module###KIXSidebarLinkedCls AJAXHandler	Activates and integrates the AJAXHandler in cstomer frontend
CustomerFrontend::Module###CustomerLinkObject	Activates and integrates a customer frontends for linking objects
KIXSidebarConfigItemLink::CISearchInClasses	Config item classes to search for
KIXSidebarConfigItemLink::KIXSidebarLinkedClsPara ms	Various parameters for linked config item representation
KIXSidebarConfigItemLink::LinkType	Link type for direct linking using a checkbox
Ticket::Frontend::CustomerTicketMessage###Assign edConfigItemSearchAttribute	Search attribute to find customer assigned config items in customer frontend
PreferencesGroups###KIXSidebarCILinksShow	Defines the config parameters of this item, to show CILinks and be shown in the preferences view.
KIXSidebarConfigItemLink::CIExcludeDeploymentStates	Defines the excluded incident states for the KIXSidebar
KIXSidebarConfigItemLink::CIExcludeIncidentStates	Defines the excluded incident states for the KIXSidebar

10.30 KIXSideBar - Reuse Article Attachments

Allows to select attachments in articles of the current ticket to reuse these in external communication (Compose, Forward, Bounce)

10.30.1 Implementation

- · New KIXSidebar modul created
- KIXSidebar-handling added to relevant frontend modules

10.30.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS KIXSidebar.xml
 - KIX40TRS/Kernel/Language/de KIX40TRS.pm
 - KIX4OTRS/Kernel/Modules/ReuseArticleAttachmentsAJAXHandler.pm



- KIX4OTRS/Kernel/Output/HTML/KIXSidebarReuseArticleAttachments.pm
- KIX4OTRS/Kernel/Output/HTML/LayoutKIX4OTRS.pm
- KIX4OTRS/Kernel/Output/HTML/Standard/AgentKIXSidebarReuseArticleAttachments.
 tt.
- KIX4OTRS/Kernel/Output/HTML/Standard/ArticleAttachmentList.tt
- var/httpd/htdocs/js/Core.KIX40TRS.KIXSidebar.js

10.30.2 SysConfig Options

Key Name	Description
Frontend::KIXSidebarBackend###ReuseArticleAttachments	Activates and integrates the KIX sidebar module
Frontend::Module### ReuseArticleAttachmentsAJAXHandler	Activates and integrates the AJAXHandler in agenten frontend

10.31 Queue View - Display as Tree/Drop Down

- In default OTRS, the queue view layout might be not useful or confusing with many listed queues
- The queue view layout can be chosen as a user preference
 - Tree based
 - Shows all available queues in a tree as known from file system explorer
 - Drop down
 - Shows all sub-queues which are available in currently selected queue as a drop down box
 - On selection of a sub-queue from the drop down list, the queue view moves to the selected sub-queue

10.31.1 Implementation

- Depending on preferred queue view the current representation is build by the corresponding function
- New agents preferences option

10.31.1.1 Related Structures

- a Filelist
 - $\bullet \verb| KIX4OTRS/Kernel/Config/Files/KIX4OTRS_QueueView.xml|\\$
 - KIX40TRS/Kernel/Language/de_KIX40TRS.pm
 - KIX4OTRS/Kernel/Modules/AgentTicketQueue.pm
 - $\bullet \quad \texttt{KIX40TRS/Kernel/Output/HTML/Standard/AgentTicketQueueTree.tt}\\$
 - $\bullet \quad \texttt{KIX40TRS/Kernel/Output/HTML/Standard/AgentTicketQueueDropDown.tt}\\$
 - var/httpd/htdocs/skins/Agent/KIX40TRS/css/Core.AgentTicketQueue.css
 - $\bullet \quad \text{var/httpd/htdocs/skins/Agent/KIX4OTRS/img/toggle_side_arrow.png}$

10.31.2 SysConfig Options

Key Name	Description
Frontend::Module###AgentTicketQueue	Frontend module registration for the agent interface.
PreferencesGroups###QueueViewLayout	Agent preferences registration for selecting a queue view layout.

10.32 Queue View - Virtual Queues

- Allow to configure ticket searches and display results as queues in queue view
- Currently virtual queues are non-personal and defined by the OTRS-Admin in the SysConfig

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10.32.1 Implementation

- Extended agents frontend module AgentTicketQueue to get and build additional queue views according to configuration in SysConfig
- Extended ticket methods to provide a ticket search method with complementary search parameters
 - TicketSearchOR
 - Nearly the same as sub TicketSearch but SOME search parameters are combined with OR
 - _TicketSearchSqlAndStringCreateOR
 - Nearly the same as sub TicketSearchSqlAndStringCreate but returned SQL uses OR

10.32.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS QueueView.xml
 - KIX40TRS/Kernel/Language/de_KIX40TRS.pm
 - KIX40TRS/Kernel/Modules/AgentTicketQueue.pm
 - KIX40TRS/Kernel/System/Ticket/TicketSearch.pm

10.32.2 SysConfig Options

Key Name	Description
Ticket::Frontend::AgentTicketQueue### IndividualViewNames	Configures the identifier and the displayed name for new virtual views in ticket overview (AgentTicketQueue). Identifier must start with a letter.
	Example:
	P1000 => My Tickets (all)
	• P1100 => My Tickets (open)
Ticket::Frontend::AgentTicketQueue### IndividualViewParameterAND	Sets search parameters for new queue views. Key has to be one of the identifier (see above). Value defines searched ticket data type and its values, separated by :::. Multiple values can be separated by ; and are combined as AND -criteria. Split multiple ticket data search criteria by . Possible placeholders for values: _ANY_, _NONE_, _ME_ (stands for agents user ID) and _ME_PREF_* (stands for named agents preferences, e.gME_PREF_UserSkin).
	Example:
	• P1000 => OwnerlDs:::_ME_
	P1100 => OwnerIDs:::_ME_ StateTypeIDs:::1;2
Ticket::Frontend::AgentTicketQueue### IndividualViewParameterOR	Sets search parameters for new queue views. Key has to be one of the identifier (see above). Value defines searched ticket data type and its values, separated by ::: Multiple values can be separated by ; and are combined as OR-criteria. Split multiple ticket data search criteria by . Possible placeholders for values: _ANY_, _NONE_, _ME_ (stands for agents user ID) and _ME_PREF_* (stands for agents preferences).
Ticket::Frontend::AgentTicketQueue### IndividualViewPermission	Sets search permission for new queue views. Key has to be one of the identifier (see above). Value has to be 'rw' or 'ro'. If not given for virtual queue, default configuration of ViewAllPossibleTickets will be used.
	Example:
	• P1000 => ro
	• P1100 => ro

10.33 Queue View - Shown Columns/Data

Ticket overview do not show ticket responsible information



- Show title and from also in separated columns
- Added article flags to ticket overview

10.33.1 Implementation

- Extended ticket overview modules to show ticket responsible information
- Column from, title, ArticleFlag and last customer subject added to DefaultColumns

10.33.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS QueueView.xml
 - KIX40TRS/Kernel/Output/HTML/TicketOverviewPreview.pm
 - KIX4OTRS/Kernel/Output/HTML/TicketOverviewSmall.pm
 - KIX40TRS/Kernel/Output/HTML/Standard/AgentTicketOverviewMedium.tt
 - KIX40TRS/Kernel/Output/HTML/Standard/AgentTicketOverviewPreview.tt
 - KIX4OTRS/Kernel/Output/HTML/Standard/AgentTicketOverviewSmall.tt

10.33.2 SysConfig Options

Key Name	Description
n.a.	n.a.

10.34 Queue View - Ticket Highlighting

In default OTRS, all tickets are shown in the same way. This is not very comfortable, especially to easily find very important tickets.

10.34.1 Implementation

- Extended ticket overview modules to show ticket responsible information
 - Style is configurable via SysConfig-options

10.34.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS_TicketOverview.xml
 - KIX4OTRS/Kernel/Output/HTML/TicketOverviewMedium.pm
 - KIX4OTRS/Kernel/Output/HTML/TicketOverviewPreview.pm
 - KIX4OTRS/Kernel/Output/HTML/TicketOverviewSmall.pm
 - $\bullet \quad \texttt{KIX4OTRS/Kernel/Output/HTML/Standard/AgentTicketOverviewMedium.tt} \\$
 - KIX40TRS/Kernel/Output/HTML/Standard/AgentTicketOverviewPreview.tt
 - KIX4OTRS/Kernel/Output/HTML/Standard/AgentTicketOverviewSmall.tt
 - var/httpd/htdocs/js/Output/HTML/Core.KIX4OTRS.TicketOverviewHighlight.pm

10.34.2 SysConfig Options

Key Name	Description
	Defines styles used for ticket highlighting depending on current ticket state – for ticket overview of type "medium" and "preview"
${\it KIX4OTRSTicketOverviewSmallHighlightMap ping}$	Defines styles used for ticket highlighting depending on current ticket state – for ticket overview of type "small"

10.35 Queue View - Show Locked on Default

The gueue view layout can be chosen as a user preference

10.35.1 Implementation

Use "show all" on default if set in agents preferences

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New agents preferences option

10.35.1.1 Related Structures

- a Filelist
 - KIX40TRS/Kernel/Config/Files/KIX40TRS QueueView.xml
 - KIX40TRS/Kernel/Modules/AgentTicketQueue.pm
 - KIX4OTRS/Kernel/System/Ticket/IndexAccelerator/RuntimeDB.pm

10.35.2 SysConfig Options

Key Name	Description
PreferencesGroups###QueueViewAll	Agent preferences registration for selecting a queue view layout.

10.36 Queue View - Customize Sort Order

The sort order of the last choosen column should be saved as a user preference. This should work for QueueVlew, StateView and EscalationView.

10.36.1 Implementation

• Save last choosen sort by and sort order as agents user preference

10.36.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Modules/AgentTicketQueue.pm
 - KIX4OTRS/Modules/AgentTicketEscalationView.pm
 - KIX4OTRS/Modules/AgentTicketStatusView.pm

10.36.2 SysConfig Options

Key Name	Description
n.a	n.a

10.37 Queue View - Customer Ticket List View

This provides a flexible ticket agent ListView in ticket queue. It's like the small-ticket list view with the difference that it is possible to separate columns, select those that will be displayed in the ticket list.

10.37.1 Implementation

- In AgentTicketQueue there is a new button "C" next by "S", "M" and "P". On selecting this button you get a new userdefined TicketListView.
- For configuration you can press the "filter"-button next to the settings-button for TicketListView's. Per column there are 4 configuration values:
 - Content: Dropdownlist with all possible values selectable for a column.
 - Width: Describes the width of the column in percent. The sum of all columns shouldn't be higher than 100%.
 - Max Chars: The value cuts the value after "Max chars". Zero (0) means that the string will not be cut.
 - Column Description: The column can get a special name by this description

10.37.1.1 Related Structures

- a Filelist
 - Config/Files/KIX4OTRS CustomTicketListView.xml
 - Language/de_KIX4OTRSCustomTicketListView.pm
 - Output/HMTL/LayoutKIX4OTRS.pm



- Output/HMTL/PreferencesTicketOverviewColumn.pm
- Output/HMTL/TicketOverviewCustom.pm
- Output/HMTL/Standard/AgentTicketOverviewCustom.tt
- Output/HMTL/Standard/AgentTicketOverviewNavBar.tt
- var/.../Agent/default/css/Core.OverviewControl.Extended.css
- var/.../Agent/default/img/columnselection.png
- var/.../Agent/default/img/zoom sprite extended.png

10.37.2 SysConfig Options

Key Name	Description
Ticket::Frontend::Overview###Custom	Allows having a custom format ticket overview.
Loader::Agent::CommonCSS###001-KIXCu stomTicketListView	List of CSS files to always be loaded for the agent interface.
PreferencesGroups###TicketOverviewCust omPageShown	Parameters for the pages (in which the tickets are shown) of the custom ticket overview.
PreferencesGroups###TicketOverviewCust omColumnValue	Parameters for the pages (in which the tickets are shown) of the custom ticket overview. This is a list of available column values can be <u>choosen</u> for the CustomTicketListView.
TicketOverviewCustomDefault	Default parameters for the pages (in which the tickets are shown) of the custom ticket overview.

10.38 Tabbed Ticket Detail Mask

- Reworked modular ticket zoom mask
- Tab-based ticket zoom mask
 - Allows to integrate other information in additional tabs
 - Ticket information shown on the right-hand side is configurable via SysConfig
- Tab contents are:
 - Article tree
 - · Shows the article tree and article's content
 - · Linked objects
 - Shows all linked objects in complex view mode
 - Allows to easily remove links
 - Sort order of tables could be changed
 - Different columns could be selected
 - Article attachments
 - Shows a list of all attachments in all articles
 - · Allows to filter for attachment name
 - added columns date and from to attachment view
 - Note add
 - Similar to action "Add Note" but not as a pop up
 - Ticket core data
 - Similar to action "Free Fields" but with most ticket core data pre-configured to edit
 - · Ticket Dynamic Fields
 - Allows to edit dynamic fields
 - Ticket summary
 - Allows to enter a free note field which is not historicised and can be edited by any agent who's permitted to read the ticket (see for next chapter)

10.38.1 Implementation

 AgentTicketZoom set up to handle dynamic and static tab content by emplyoing uses jquery UI-Tabs 1.10.3



- dynamic: tab content is generated after selecting/displaying a tab by a separate frontend module
- static: tab content is generated when AgentTicketZoom is generated
- provide methods which generate human readabe content for ticket data
- tab module AgentTicketZoomTabActionCommon is the tab-equivalent for AgentTicketZoomActionCommon – basically the same functionality

10.38.1.1 Related Structures

a Filelist

- KIX4OTRS/Kernel/Config/Files/KIX4OTRS TicketZoom.xml
- KIX4OTRS/Kernel/Config/Files/KIX4OTRS TicketZoomActionCommon.xml
- KIX40TRS/Kernel/Config/Files/KIX40TRS TicketZoomTicketCoreData.xml
- KIX40TRS/Kernel/Config/Files/KIX40TRS TicketZoomTicketDynamicField.xml
- KIX40TRS/Kernel/Language/de KIX40TRS.pm
- KIX40TRS/Kernel/Language/de KIX40TRSTicketZoomTab.pm
- KIX40TRS/Kernel/Modules/AgentTicketZoom.pm
- KIX40TRS/Kernel/Modules/AgentTicketZoomKIX40TRSMinimumextended.pm
- KIX4OTRS/Kernel/Modules/AgentTicketZoomTabActionCommon.pm
- KIX4OTRS/Kernel/Modules/AgentTicketZoomTabAttachments.pm
- KIX4OTRS/Kernel/Modules/AgentTicketZoomTabLinkedObjects.pm
- KIX4OTRS/Kernel/Modules/AgentTicketZoomTabProcess.pm
- KIX40TRS/Kernel/Modules/AgentTicketZoomTabSummary.pm
- KIX40TRS/Kernel/Output/HTML/LayoutKIX40TRS.pm
- KIX4OTRS/Kernel/Modules/AgentTicketZoomTabArticle.pm
- KIX4OTRS/Kernel/Output/HTML/TicketZoomTabDummy.pm
- KIX4OTRS/Kernel/Output/HTML/Standard/AgentTicketZoom.tt
- $\bullet \quad \texttt{KIX4OTRS/Kernel/Output/HTML/Standard/AgentTicketZoomKIX4OTRSMinimum extended.tt}$
- KIX4OTRS/Kernel/Output/HTML/Standard/AgentTicketZoomTabActionCommon.tt
- KIX40TRS/Kernel/Output/HTML/Standard/AgentTicketZoomTabArticle.tt
- KIX4OTRS/Kernel/Output/HTML/Standard/AgentTicketZoomTabAttachments.tt
- KIX4OTRS/Kernel/Output/HTML/Standard/AgentTicketZoomTabDummy.tt
- KIX4OTRS/Kernel/Output/HTML/Standard/AgentTicketZoomTabLinkedObjects.tt
- $\bullet \quad \texttt{KIX4OTRS/Kernel/Output/HTML/Standard/AgentTicketZoomTabProcess.tt}$
- $\bullet \verb| KIX4OTRS/Kernel/Output/HTML/Standard/AgentTicketZoomTabSummary.tt|\\$
- KIX4OTRS/Kernel/Output/HTML/Standard/FooterTicketZoomTab.tt
- KIX4OTRS/Kernel/Output/HTML/Standard/NotifyKIX4OTRS.tt
- KIX4OTRS/Kernel/System/Ticket/TicketExtensionsKIX4OTRS.pm
- var/httpd/htdocs/js/thirdparty/jquery-ui-tabs-1.10.3/jquery.ui.tabs.js
- var/httpd/htdocs/js/Core.Agent.TicketZoom.js
- var/httpd/htdocs/js/Core.KIX4OTRS.Dialog.js
- var/httpd/htdocs/js/Core.KIX4OTRS.Form.Validate.js
- var/httpd/htdocs/js/Core.KIX4OTRS.TicketZoomTabs.js
- var/httpd/htdocs/skins/Agent/KIX4OTRS/css/Core.Table.css
- var/httpd/htdocs/skins/Agent/KIX4OTRS/css/Core.TicketDetail.css
- var/httpd/htdocs/skins/Agent/KIX4OTRS/img/action.png
- var/httpd/htdocs/skins/Agent/KIX4OTRS/img/action hover.png
- var/httpd/htdocs/skins/Agent/KIX4OTRS/img/disk.png
- var/httpd/htdocs/skins/Agent/KIX4OTRS/img/thead sort down bg.png
- var/httpd/htdocs/skins/Agent/KIX4OTRS/img/thead sort down bg rtl.png
- var/httpd/htdocs/skins/Agent/KIX40TRS/img/thead sort up bg.png
- var/httpd/htdocs/skins/Agent/KIX4OTRS/img/thead sort up bg rtl.png

10.38.2 SysConfig Options

Key Name	Description
Frontend::Module### AgentTicketZoomTabActionCommon	Frontend module registration for agent ticket zoom tab
Frontend::Module### AgentTicketZoomTabAttachments	Frontend module registration for agent ticket zoom tab
Frontend::Module### AgentTicketZoomTabLinkedObjects	Frontend module registration for agent ticket zoom tab
Frontend::Module### AgentTicketZoomTabSummary	Frontend module registration for agent ticket zoom tab
Frontend::Module### AgentTicketZoomTabDynamicFields	Frontend module registration for agent ticket zoom tab



Key Name	Description
Frontend::Module### AgentTicketZoomTabArticle	Frontend module registration for agent ticket zoom tab
Frontend::Module### AgentTicketZoomTabEditCoreData	Frontend module registration for agent ticket zoom tab
Frontend::Module###AgentTicketZoomTabProcess	Frontend module registration for agent ticket zoom tab
Ticket::Frontend::AgentTicketZoomTabActionComm on ###***	Configuration-options for article action in tabbed ticket zoom view
Ticket::Frontend::AgentTicketZoomTabAttachments ###***	Configuration-options for attachments tab in tabbed ticket zoom view
Ticket::Frontend::AgentTicketZoomTabEditCoreData ###***	Configuration-options for ticket data change action in tabbed ticket zoom view
Ticket::Frontend::AgentTicketZoomTabSummary ###***	Configuration-options for ticket summary tab in tabbed ticket zoom view
Ticket::Frontend::AgentTicketZoomTabDynamicField s ###***	Configuration-options for ticket dynamic field tab in tabbed ticket zoom view
Ticket::Frontend::AgentTicketZoom###TicketDataKeys	Defines which ticket data parameters are displayed in direct data presentation.
Ticket::Frontend::AgentTicketZoom###TicketDataLabel	Defines labels for internal ticket attribute names.
AgentTicketZoomBackend###0050-PreloadDumm y	Defines parameters for a further exemplary tab in the tabbed ticket zoom view.
AgentTicketZoomBackend###0110-Article	Defines parameters for the AgentTicketZoomTab "Articles".
AgentTicketZoomBackend###0115-Attachments	Defines parameters for the AgentTicketZoomTab "Attachments".
AgentTicketZoomBackend###0120-LinkedObjects	Defines parameters for the AgentTicketZoomTab "Linked Objects".
AgentTicketZoomBackend###0250-Note	Defines parameters for the AgentTicketZoomTab "Note".
AgentTicketZoomBackend###0255-CoreData	Defines parameters for the AgentTicketZoomTab "Ticket Core Data".
AgentTicketZoomBackend###0300-Summary	Defines parameters for the AgentTicketZoomTab "Summary".
AgentTicketZoomBackend###0105-Process	Defines parameters for the AgentTicketZoomTab "Process".

10.39 TicketZoom - Article Tree View

In former OTRS version, within the ticket zoom views articles could be distinguished by the use of an article specific icon. Somehow those icons are not shown anymore. This is not very comfortable, especially for tickets with a high number of articles.

Furthermore, the last customer article will be shown whenever the agents goes into a ticket zoom view. It is sometimes necessary to display the first or last article (this could be an internal note), otherwise this forcer additional working steps.

The default behavior of the article tree when selecting an article is putting this article on the top of the article tree list. This behavior has been changed. The article tree list is moved just as much as required, but not as possible.



10.39.1 Implementation

- Extended the article tree view in agent's ticket zoom view to show an article specific icon.
 - Shows direction of articles (incoming, outgoing, internal)
 - Shows the article type (email, phone, note, ...)
 - Used artice icons are configurable via SysConfig
- Extended article display methods to offer an individually selected article on page initialization
 - Configurable by agents preferences

10.39.1.1 Related Structures

- a Filelist
 - KIX40TRS/Kernel/Config/Files/KIX40TRS Ticket.xml
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS TicketZoom.xml
 - KIX4OTRS/Kernel/Modules/AgentTicketZoomTabArticle.pm
 - KIX40TRS/Kernel/Output/HTML/Standard/AgentTicketZoomTabArticle.tt
 - var/httpd/htdocs/skins/Agent/default/img/direction-incoming.png
 var/httpd/htdocs/skins/Agent/default/img/direction-internal.png
 - var/httpd/htdocs/skins/Agent/default/img/direction-outgoing.png
 - var/nttpd/ntdocs/skins/Agent/default/img/direction-outgoing.pn
 var/httpd/htdocs/skins/Agent/default/img/email-external.png
 - var/httpd/htdocs/skins/Agent/default/img/email-internal.png
 - var/httpd/htdocs/skins/Agent/default/img/email-notification-ext.png
 - var/httpd/htdocs/skins/Agent/default/img/email-notification-int.png
 - var/httpd/htdocs/skins/Agent/default/img/note-external.png
 - var/httpd/htdocs/skins/Agent/default/img/note-internal.png
 - var/httpd/htdocs/skins/Agent/default/img/note-report.png
 - var/httpd/htdocs/skins/Agent/default/img/phone.png
 - var/httpd/htdocs/skins/Agent/default/img/sms.png
 - var/httpd/htdocs/skins/Agent/default/img/webrequest.png

10.39.2 SysConfig Options

Key Name	Description
Ticket::ArticleDirectionIcon	Define the icon to be used as article direction.
Ticket::ArticleSenderTypeIcon	Define the icon to be used as article sender type.
Ticket::ArticleTypeIcon	Define the icon to be used as article type.
PreferencesGroups###ArticleToDisplay	Registration for agents preferences to set the initially shown article in agent's ticket zoom mask

10.40 TicketZoom - Flexible Use of Article Actions

in OTRS the action available to certain article types are hard coded, it's not possible to forward a note-article or to prevent some article types from being subject to specific article actions without changind the source code.

10.40.1 Implementation

 the article menu generation has been made configurable (article type to article actions)

10.40.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS TicketZoom.xml
 - KIX4OTRS/Kernel/Modules/AgentTicketZoomTabArticle.pm
 - KIX40TRS/Kernel/Output/HTML/Standard/ArticleActionMenu.tt

10.40.2 SysConfig Options

Key Name	Description
Ticket::Frontend::AgentTicketZoomTabArticle###	Defines email-actions allowed for article types.

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Key Name	Description
ArticleEmailActions	

10.41 TicketZoom - ArticleFilter Extensions

ArticleFilter extended for use with Subject and Body, ArtcileFlags and dynamic fields in AgentTicketZoomArticle. Now tickets could also be filtered by all these criteria.

10.41.1 Implementation

 Added some input fields to filter mask. Extended the SessionString by new attributes. Inserted matching-criteria.

10.41.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Modules/AgentTicketZoomTabArticle.pm
 - KIX4OTRS/Kernel/Output/HTML/Standard/AgentTicketZoomTabArticle.tt

10.41.2 SysConfig Options

Key Name	Description
n.a	n.a

10.42 TicketZoom - Attachment Download As Zip-File

All attachments for a ticket should be downloadable as ZIP-file.

10.42.1 Implementation

- · Added checkboxes to select all attachments to download
- Added button in article tab to download all attachments as ZIP-File

10.42.1.1 Related Structures

- a Filelist
 - Kernel/Output/Standard/AgentTicketZoomTabAttachments.tt
 - Kernel/Modules/AgentTicketZoomTabAttachments.pm
 - KIX4OTRS/Kernel/Output/HTML/OutputFilterAgentTicketAttachmentDownload.pm
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS AgentTicketAttachmentDownload.xml
 - KIX40TRS/Kernel/Modules/AgentTicketAttachmentDownload.pm

10.42.2 SysConfig Options

Key Name	Description
"Frontend::Output::FilterElementPost###AgentTic ketAttachmentDownload	Activates the 'AgentTicketAttachmentDownload' link.
Frontend::Module###AgentTicketAttachmentDownload	Frontend module registration for AgentTicketAttachmentDownload.

10.43 TicketZoom - Attachment Delete

Select attachments and delete it using the attachment tab in AgentTicketZoom.



10.43.1 Implementation

- · Added button in attachment tab to delete selected attachments
- Function can be deactivated using a SysConfig option
- Writes history entry for every deleted attachment

10.43.1.1 Related Structures

- a Filelist
 - KIX40TRS/Kernel/Config/Files/KIX40TRS TicketZoom.xml
 - Kernel/Output/Standard/AgentTicketZoomTabAttachments.tt
 - Kernel/Modules/AgentTicketZoomTabAttachments.pm

10.43.2 SysConfig Options

Key Name	Description
Ticket::Frontend::AgentTicketZoomTabActionComm on ###AllowAttachmentDelete	Enable or disable the attachment delete function

10.44 TicketZoom - Quick Links

Link tickets with other objects using the linked object tab.

10.44.1 Implementation

- Added autocomplete field to select quick and easy objects to link
- · QuickLink backends are used to define search attributes and classes

10.44.1.1 Related Structures

- a Filelist
 - KIX40TRS/Kernel/Config/Files/KIX40TRS_LinkObject.xml
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS_TicketZoom.xml
 - KIX4OTRS/Kernel/Language/de KIX4OTRSTicketZoomTab.pm
 - KIX4OTRS/Kernel/Modules/AgentTicketZoom.pm
 - KIX4OTRS/Kernel/Modules/AgentTicketZoomTabLinkedObjects.pm
 - KIX4OTRS/Kernel/Output/HTML/Standard/AgentTicketZoom.tt
 - $\bullet \verb| KIX40TRS/Kernel/Output/HTML/Standard/AgentTicketZoomTabLinkedObjects.tt|\\$
 - KIX4OTRS/Kernel/System/QuickLink/Person.pm (neu)
 - KIX40TRS/Kernel/System/QuickLink/Ticket.pm (neu)
 - $\bullet \verb| KIX40TRSITSMConfigManagement/Kernel/Config/Files/KIX40TRS_ConfigItemLink.xml| \\$
 - KIX4OTRSITSMConfigManagement/Kernel/System/QuickLink/ITSMConfigItem.pm (neu)
 - var/httpd/htdocs/js/Core.KIX4OTRS.GenericAutoCompleteSearch.js

10.44.2 SysConfig Options

Key Name	Description
Ticket::Frontend::AgentTicketZoomTabLinkedObjects###QuickLink	Enable quick link in linked objects tab (different backends have to be defined first)
QuickLink::Backend###Ticket	QuickLink backend registration for ticket links
QuickLink::Backend###Person	QuickLink backend registration for person links.
QuickLink::Backend###ITSMConfigItem	QuickLink backend registration for ITSMConfigItem links.



10.45 Ticket Scratch Pad Notes

Need to enter a free note field which is not historized and can be edited by any agent who's permitted to read the ticket. This field is used to give short information like Post-It notes.

10.45.1 Implementation

- Extended Ticket-methods to handle ticket scratch pad notes (Add-, Update-, Delete-methods)
- Create sidebar modul to show or hide scratchpad in each frontend modul
- New parameter "TicketNotes" in TicketSearch (will also be used in Fulltext search)

10.45.1.1 Related Structures

- a Filelist
 - KIX40TRS/Kernel/Config/Files/KIX40TRS TicketZoom.xml
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS KIXSidebar.xml
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS_GenericAutoCompleteSearch.xml
 - KIX40TRS/Kernel/Modules/AgentTicketSearch.pm
 - KIX40TRS/Kernel/Modules/ScratchpadAJAXHandler.pm
 - KIX40TRS/Kernel/Output/HTML/KIXSidebarScratchpad.pm
 - KIX4OTRS/Kernel/Output/HTML/Standard/AgentKIXSidebarScratchpad.tt
 - KIX4OTRS/Kernel/Output/HTML/Standard/AgentTicketSearch.tt
 - KIX40TRS/Kernel/System/Ticket/TicketSearch.pm
 - KIX4OTRS/var/httpd/htdocs/skins/Agent/default/css/KIX4OTRS.TicketDetail.css
 - var/httpd/htdocs/skins/Agent/default/img/OK.png
 - var/httpd/htdocs/js/Core.KIX4OTRS.Form.Validate.js
 - KIX40TRS.sopm

10.45.2 SysConfig Options

Key Name	Description
Frontend::KIXSidebarBackend###Scratchpad	Parameters for the KIXSidebar <u>backend</u> <u>Scratchpad</u> (Remarks)
Frontend::Module###ScratchpadAJAXHandler	<u>Frontend</u> module registration for the ScratchpadAJAXHandler object.

10.46 Ticket Processing – Show all Owner and Responsibles

Owner and responsible selections show agents based on the selected queue and agents custom queues in agent's ticket create masks. To prevent unnecessary working steps, it is sometimes helpful to show all agents with RW-permissions on queue selection.

10.46.1 Implementation

- Extended agent's frontend ticket create masks to offer all owner and responsible for selection as default
 - Extended frontend modules AgentTicketEmail and AgentTicketPhone
 - Configurable via SysConfig

10.46.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS Ticket.xml
 - KIX40TRS/Kernel/Modules/AgentTicketEmail.pm
 - KIX4OTRS/Kernel/Modules/AgentTicketPhone.pm



10.46.2 SysConfig Options

Key Name	Description
	Dis-/enables to show all owner and responsibles with RW-permissions on page initialization

10.47 Ticket Processing – Link Tickets During Ticket Creation

Using the OTRS::ITSM-package IncidentProblemManagement, it is possible to link tickets to other objects during ticket creation. This function should be available without this extension in a default OTRS as well.

10.47.1 Implementation

- Extended agent's frontend ticket create masks to offer ticket link functions without any ITSM extension package.
 - Extended AgentTicketEmail to select and handle linked objects
 - Extended AgentTicketPhone to select and handle linked objects

10.47.1.1 Related Structures

- a Filelist
 - KIX40TRS/Kernel/Language/de KIX40TRS.pm
 - KIX4OTRS/Kernel/Modules/AgentTicketEmail.pm
 - KIX4OTRS/Kernel/Modules/AgentTicketPhone.pm
 - KIX4OTRS/Kernel/Output/HTML/Standard/AgentTicketEmail.tt
 - KIX40TRS/Kernel/Output/HTML/Standard/AgentTicketPhone.tt

10.47.2 SysConfig Options

Key Name	Description
n.a.	n.a.

10.48 Ticket Processing – Preselect Current Ticket Data

Whenever a customer composes a follow up in the customer interface, he has to select a new state for his ticket. There is no way to use the current ticket state as a preselected value. This might cause some unwanted changes, e.g. the ticket was in a waiting state and the customer changed it to open. Equivalent to this, there is no way to offer a preselection in agent's ticket processing masks. This is again not very useful. E.g. if you are creating an internal note and you are forced to select a ticket owner but do not want to change it, you have to keep in mind who is the current ticket owner. This is impossible when you are dealing with many tickets at a time.

10.48.1 Implementation

- Extended agent's ticket note module (AgentTicketActionCommon) to preselect current ticket state, owner and responsible
- Extended customer's ticket zoom module to preselect current ticket state
- Added SysConfig-Option to dis-/enable preselection, depending on used action

10.48.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS Ticket.xml
 - KIX40TRS/Kernel/Modules/AgentTicketActionCommon.pm
 - KIX4OTRS/Kernel/Modules/AgentTicketZoomTabActionCommon.pm
 - KIX4OTRS/Kernel/Modules/AgentTicketZoomTabEditCoreData.pm
 - KIX4OTRS/Kernel/Modules/CustomerTicketZoom.pm



10.48.2 SysConfig Options

Key Name	Description
Ticket::ProcessingOptions::InitialDataShown	Preselect old ticket data in choosen agent's ticket note functions and customer ticket zoom function

10.49 Ticket Processing - PretendAction

In default OTRS a new ticket action requires creating a frontend module with TT-File, plus some configuration work. Since AgentTicketActionCommon provides all required function the first steps can be made redundant by the use of a special parameter. If given, the PretendAction-parameter overrides the default configuration for AgentTicketActionCommon, thus allowing to create new ticket actions without creating a new frontend module. It is useful to dis-/enable input fields being set with the current value, i.e. if entering these fields is mandadory but a change not always required. Entering the current value can be annyoing because it requires a good memory or a look at the ticket zoom view

10.49.1 Implementation

- add handling for an additional parameter, which defines the actual configuration for this call ("PretendAction"), to frontend modules
- add additional parameter to DTL-files (new form field)

10.49.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS Ticket.xml
 - KIX4OTRS/Kernel/Modules/AgentTicketActionCommon.pm
 - KIX4OTRS/Kernel/Modules/AgentTicketZoomTabActionCommon.pm
 - KIX4OTRS/Kernel/Output/HTML/Standard/AgentTicketActionCommon.tt
 - KIX40TRS/Kernel/Output/HTML/Standard/AgentTicketZoomTabActionCommon.tt

10.49.2 SysConfig Options

Key Name	Description
AgentTicketZoomBackend###0255-CoreData	a sample for the use of "PretendAction"
	ticket zoom tab "Core Data" has been registered as a new tab action but no separate frontend module file was created

10.50 Ticket Processing - Initial Data Selection

It is useful to dis-/enable input fields being set with the current value, i.e. if entering these fields is mandatory but a change not always required. Entering the current value can be annoying because it requires a good memory or a look at the ticket zoom view.

10.50.1 Implementation

- · affects fields Owner, Responsible, State
- if parameter enabled for current Action/PRetendAction, set selected value to current value → modifications in frontend modules

10.50.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS Ticket.xml
 - KIX40TRS/Kernel/Modules/AgentTicketActionCommon.pm
 - KIX4OTRS/Kernel/Modules/AgentTicketZoomTabActionCommon.pm
 - KIX4OTRS/Kernel/Modules/CustomerTicketZoom.pm



10.50.2 SysConfig Options

Key Name	Description
Ticket::ProcessingOptions::InitialDataShown	Preselect old ticket data in chosen ticket note functions.

10.51 Ticket Processing – AJAX Updates in AgentTicketActionCommom

Changing a ticket data value in a ticket processing mask causes a page reload. Depending on your OTRS server this might wast some time, especially since content updates could be performed much faster via AJAX requests.

10.51.1 Implementation

• Extended frontend module AgentTicketActionCommon to use AJAX request to update ticket data fields instead of page reloads.

10.51.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Modules/AgentTicketActionCommon.pm
 - $\bullet \verb| KIX4OTRS/Kernel/Output/HTML/Standard/AgentTicketActionCommon.tt|\\$

10.51.2 SysConfig Options

Key Name	Description
n.a.	n.a.

10.52 Ticket Processing – Automatic Bounce Information

In default OTRS, there is no easy way to realize if a ticket was bounced to another mail address. Bounce actions can be identified only in the ticket history. But this information should be viewable directly in the ticket detail mask and generated automatically without any further actions.

10.52.1 Implementation

- Extended agents frontend module AgentTicketBounce to generate automatic bounce information
 - Creates an article
 - Content of bounce article configurable via SysConfig

10.52.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS Ticket.xml
 - KIX4OTRS/Kernel/Language/de_KIX4OTRS.pm
 - KIX40TRS/Kernel/Modules/AgentTicketBounce.pm

10.52.2 SysConfig Options

Key Name	Description
Frontend::Agent::AutomaticBounceText	When a ticket is bounced, a note will be added automatically to this ticket. In this text area you can define this text.

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10.53 Ticket Processing - Selectable Re:/Fwd:-Addition

In default OTRS, subjects of forwarded (AgentTicketForward) or composed emails (AgentTicketCompose) will always be completed with "Re:" or "Fwd:" at the beginning. This is not useful in every situation. Therefore, it should be possible to deactivate this autocompletion.

10.53.1 Implementation

- Extended agents frontend module AgentTicketCompose and AgentTicketForward to provide a selectable subject-addition.
 - Extended layout templates to provide a checkbox
 - Extended frontend ticket modules to handle agent's selection

10.53.1.1 Related Structures

- a Filelist
 - KIX40TRS/Kernel/Config/Files/KIX40TRS Ticket.xml
 - KIX4OTRS/Kernel/Modules/AgentTicketCompose.pm
 - KIX40TRS/Kernel/Modules/AgentTicketForward.pm
 - KIX4OTRS/Kernel/Output/HTML/Standard/AgentTicketCompose.tt
 - KIX40TRS/Kernel/Output/HTML/Standard/AgentTicketForward.tt
 - var/httpd/htdocs/skins/Agent/KIX4OTRS/css/Core.Form.css
 - var/httpd/htdocs/skins/Agent/KIX4OTRS/img/NoFwd.png
 - var/httpd/htdocs/skins/Agent/KIX4OTRS/img/NoRe.png

10.53.2 SysConfig Options

Key Name	Description
n.a.	n.a.

10.54 Ticket Processing - Empty Emails

In default OTRS, there is no way to write an email starting with an empty template from an existing ticket. The last customer article will be quoted and added automatically.

10.54.1 Implementation

- Extended agents frontend module AgentTicketCompose to offer a blank email template
 - Registered new ticket menu modue to offer an empty email-action
 - Extended AgentTicketCompose to start with an empty compose mask

10.54.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS_TicketZoom.xml
 - KIX40TRS/Kernel/Modules/AgentTicketCompose.pm

10.54.2 SysConfig Options

Key Name	Description
Ticket::Frontend::MenuModule###500-EmptyMail	Registration to show an link to the empty email template in the ticket menu.

10.55 Ticket Processing – Predefined Body for Forwarding

In default OTRS, the agent's mask to forward tickets will always start with an empty



ticket body. This is not very comfortable and different to other ticket processing actions.

10.55.1 Implementation

- Extended agents frontend module AgentTicketForward to handle a default body
 - Default body configurable via SysConfig

10.55.1.1 Related Structures

- a Filelist
 - KIX40TRS/Kernel/Config/Files/KIX40TRS Ticket.xml
 - KIX4OTRS/Kernel/Modules/AgentTicketForward.pm

10.55.2 SysConfig Options

Key Name	Description
Ticket::Frontend::AgentTicketForward### DefaultTextTicketForwardBody	Defines the default body for a forwarded email.

10.56 Ticket Processing – Merge Tickets Based on Customer Users

Provide a view to show all tickets from a given customer and allow to merge those tickets to the oldest, newest or current selected ticket.

10.56.1 Implementation

- Provide new agents frontend module AgentTicketMergeToCustomer to merge all tickets from a given customer user.
 - Highlights tickets which are answered
 - Restricts shown tickets based on ticket state type

10.56.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS_AgentTicketMergeToCustomer.xml
 - KIX40TRS/Kernel/Language/de KIX40TRSAgentTicketMergeToCustomer.pm
 - KIX4OTRS/Kernel/Modules/AgentTicketMergeToCustomer.pm
 - KIX4OTRS/Kernel/Output/HTML/Standard/AgentTicketMergeToCustomer.tt
 - var/httpd/htdocs/js/Core.KIX40TRS.Agent.TicketMergeToCusomer.js
 - var/httpd/htdocs/skins/KIX4OTRS/css/KIX4OTRS.AgentTicketMergeToCusomer.css
 - var/httpd/htdocs/skins/Agent/KIX4OTRS/img/Answered.png

10.56.2 SysConfig Options

Key Name	Description
Frontend::Module###AgentTicketMergeToCustom er	Frontend module registration for AgentTicketMergeToCustomer.
Ticket::Frontend::MenuModule### 470-AgentTicketMergeToCustomer	Shows a link in the menu that allows to merge all tickets from the ticket customer in the ticket zoom view of the agent interface.
Ticket::Frontend::PreMenuModule### 470-AgentTicketMergeToCustomer	Shows a link in the ticket overview menu that allows to merge all tickets from the ticket customer in the ticket zoom view of the agent interface.
Ticket::Frontend::AgentTicketMergeToCustomer## # AnsweredHistoryType	Selected history types to classify a ticket to be answered.
Ticket::Frontend::AgentTicketMergeToCustomer## # StateTypes	Selected state types to restrict shown customer tickets.



10.57 Ticket Processing – Unlock Tickets after Cancle Bulk Action

After opening bulk action mask (popup) and closing or canceling without submit explicit locked tickets to this action will be unlocked again.

10.57.1 Implementation

- Cancel/CLose link changed to undo link with subaction unlock
- String of explicit locked tickets created

10.57.1.1 Related Structures

- a Filelist
 - KIX40TRS/Kernel/Output/HTML/Standard/AgentTicketBulk.tt
 - KIX4OTRS/Kernel/Modules/AgentTicketBulk.pm

10.57.2 SysConfig Options

Key Name	Description
n.a.	n.a.

10.58 Ticket Processing – Autocomplete Field for TicketID in AgentTicketMerge

Provides an autocomplete search field in merge mask.

10.58.1 Implementation

- Autocomplete field added
- · Search added in AgentTicketMerge

10.58.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/AgentTicketMerge.pm
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS Ticket.xml
 - KIX40TRS/Kernel/Output/HTML/Standard/AgentTicketMerge.tt
 - Core.KIX4OTRS.GenericAutoCompleteSearch.js
 - KIX4OTRS.sopm

10.58.2 SysConfig Options

Key Name	Description
Ticket::Frontend::AgentTicketMerge###AutoComp leteTicketID	Autocomplete search attributes for ticket id, comma-eparated

10.59 Ticket Processing - Copy, Move or Delete Article

Allow to copy, move or delete articles of a ticket. The accounted time of the article can be moved or deleted too. To use this function you have to be in a specific group.

10.59.1 Implementation

 Provide new agents frontend module AgentArticleCopyMove to copy, move and delete articles.

10.59.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS TicketZoom.xml



- KIX40TRS/Kernel/Modules/AgentArticleCopyMove.pm
- KIX40TRS/Kernel/Output/HTML/Standard/AgentArticleCopyMove.tt
- KIX4OTRS/Kernel/System/Ticket/TicketExtensionsKIX4OTRS.pm

10.59.2 SysConfig Options

Key Name	Description
Frontend::Module###AgentArticleCopyMove	Frontend module registration for AgentArticleCopyMove.

10.60 Ticket Processing - Edit Article

Allow to edit existing article of a ticket. You have to be the responsible of the ticket to do this action. You are only allowed to edit times and content (body and subject) for articles which are of the article types "note*" and "phone".

10.60.1 Implementation

New agents frontend module AgentArticleEdit to edit article data.

10.60.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS AgentArticleEdit.xml
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS_TicketZoom.xml
 - KIX40TRS/Kernel/Language/de KIX40TRSAgentArticleEdit.pm
 - KIX4OTRS/Kernel/Modules/AgentArticleEdit.pm
 - KIX4OTRS/Kernel/Output/HTML/Standard/AgentArticleEdit.tt

10.60.2 SysConfig Options

Key Name	Description
Frontend::Module###AgentArticleEdit	Frontend module registration for AgentArticleEdit.
Ticket::Frontend::AgentArticleEdit###Permission	Required permissions to edit articles.
Ticket::Frontend::AgentArticleEdit###RequiredLock	Defines if a ticket lock is required to edit articles.
Ticket::Frontend::AgentArticleEdit###HistoryType	History type for this action.
	Dynamic field options shown in the article edit screen in the agent interface. Possible settings: $0 = \text{Disabled}$, $1 = \text{Enabled}$, $2 = \text{Enabled}$ and required.
Ticket::Frontend::AgentArticleEdit###EditableArticleTypes	List of comma separated article types which can be changed if the type of the article to be edited is not listed here, the corresponding dropdown will not be shown.
Ticket::Frontend::AgentArticleEdit###OnlyResponsible	Only ticket responsible can edit articles of the ticket.
Ticket::Frontend::AgentTicketZoomTabArticle### ArticleEmailActions	Defines email-actions allowed for article types.

10.61 Ticket Processing - Configurable CustomerTicketMessage

In default OTRS the customer's ticket create mask is not as flexible as the agent's ticket create masks. For instance, there are no SysConfig-options to disable the ticket type selection and to set up a predefined body and subject.

10.61.1 Implementation

- Extended customer's ticket create masks to provide a more flexible appearance
- New options in SysConfig to configure the appearance of the customer's ticket create mask



10.61.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS CustomerFrontendAdoptions.xml
 - KIX4OTRS/Kernel/Modules/CustomerTicketMessage.pm

10.61.2 SysConfig Options

Key Name	Description
Ticket::Frontend::CustomerTicketMessage### TicketType	Dis-/enables ticket type selection in the customer's ticket create mask.
Ticket::Frontend::CustomerTicketMessage### TicketTypeDefault	Sets the default selected ticket type.
Ticket::Frontend::CustomerTicketMessage### TicketTypeFix	Used ticket type, if ticket type selection is disabled.
Ticket::Frontend::CustomerTicketMessage### Subject	Defines the default subject of a note in the customer interface.
Ticket::Frontend::CustomerTicketMessage### Body	Defines the default body of a note in the customer interface.

10.62 Ticket Processing – No Double Addresses after Change of Notification Selection

Depending on the change of a persons notification selection, e.g. in empty answer, double addresses in to/cc/bcc should be removed.

10.62.1 Implementation

Extend javascript functionality of Core.KIX4OTRS.LinkedPersons

10.62.1.1 Related Structures

- a Filelist
- Var/httpd/htdocs/js/Core.KIX40TRS.LinkedPersons.js

10.62.2 SysConfig Options

Key Name	Description
n.a.	n.a.

10.63 Ticket Processing – Article Flags

In default OTRS there is no opportunity to set own flags for articles. This extension allows administrators to define some article flags to add some css and to choose an icon - out of font-awesome - for every flag. This new flags could be set for each article assigned to a user. The user could also leave some keywords, a subject and some text describing the article flag for each of them. Tickets with marked articles could be found using the navigation bar shortcut, the ticket search or a dashboard plugin. A column with one or all article flags could be displayed in any ticket overview. The article flag and its icon is alos show in the article tab article header.

10.63.1 Implementation

- Create new table kix_article_flag to store the keywords, subject and the note
- added a toolbar module for article flags and a column in DefaultColumns
- An output-filter adds the article flag selection for each article in the article menu



jQuery is used to display the icon and the edit or delete dialogue

10.63.1.1 Related Structures

a Filelist

- KIX40TRS/Kernel/Config/Files/KIX40TRS Ticket.xml
- KIX4OTRS/Kernel/Config/Files/KIX4OTRS TicketActions.xml
- KIX4OTRS/Kernel/Config/Files/KIX4OTRS_TicketZoom.xml
- KIX40TRS/Kernel/Language/de KIX40TRS.pm
- KIX4OTRS/Kernel/Modules/CustomerTicketMessage.pm
- KIX4OTRS/Kernel/Modules/AgentTicketArticleFlagView.pm
- KIX40TRS/Kernel/Modules/AgentTicketSearch.pm
- KIX4OTRS/Kernel/Modules/AgentTicketZoomTabArticle.pm
- KIX4OTRS/Kernel/Output/HTML/TicketOverviewSmall.pm
- KIX4OTRS/Kernel/Output/HTML/Standard/AgentTicketOverviewSmall.tt
- KIX4OTRS/Kernel/Output/HTML/ToolBarArticleFlag.pm
- KIX40TRS/Kernel/Output/HTML/Standard/AgentTicketSearch.tt
- KIX4OTRS/Kernel/Output/HTML/Standard/ArticleActionMenu.tt
- KIX4OTRS/Kernel/System/Ticket/ExtensionsKIX4OTRS.pm
- var/httpd/htdocs/js/KIX4OTRS.TicketZoomTabs.js • var/httpd/htdocs/skins/Agent/KIX4OTRS/css/Core.Default.css
- var/httpd/htdocs/skins/Agent/KIX4OTRS/cssCore.Header.css

10.63.2 SysConfig Options

Key Name	Description
Frontend::ToolBarModule###11-Ticket::AgentArticleFlagToDo	Toolbar Item for a shortcut ToDo
Frontend::ToolBarModule###12-Ticket::AgentArticleFlagImportant	Toolbar Item for a shortcut Important
Ticket::Frontend::AgentTicketZoomTabArticle###ArticleFlags	Defines article flags
Ticket::Frontend::AgentTicketZoomTabArticle###ArticleFlagIcons	Defines icons for article icons
Ticket::Frontend::AgentTicketZoomTabArticle###ArticleFlagsOnlyOwnerAndResponsible	Defines whether article flags can be set by every agent or just by owner and responsible
Frontend::Module###AgentTicketArticleFlagView	The module registration for the list view module
Ticket::Frontend::AgentTicketArticleFlagView###S ortBy::Default	The default sort in the list view module
Ticket::Frontend::AgentTicketArticleFlagView###Order::Default	The default order in the list view module

10.64 Ticket Processing – External Reference Numbers

In default OTRS there is no opportunity to assign mails from external ticket systems and with their own reserence numbers. It should be possible to store this external reference number on a ticket to match with incomming messages

10.64.1 Implementation

- Create dynamic field to store the external reference number -ExternalReferenceNumber
- dynamic field store customer reference number to CustomerReferenceNumber

10.64.1.1 Related Structures

a Filelist

- KIX4OTRS/Kernel/System/PostMaster/Filter/ExtendedFolloUp.pm
- KIX40TRS/Kernel/Config/Files/ExtendedFollowUp.xml

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10.64.2 SysConfig Options

Key Name	Description
PostMaster::PreFilterModule###888-ExtendedFollowUp	PostmasterFilter which sets destination queue in X-headers depending on email suffix.
ExtendedFollowUp###Identifier	Registers an identifier for the email filters. Value is used in the following <u>config</u> options. The keys will use for sorting.
ExtendedFollowUp###SenderEmail	Key has to be one of the identifier (see above). Values have to be an email address or a <u>regexp</u> as the sender which will be matched in from field of email.
ExtendedFollowUp###ExternalReference	Key has to be one of the identifier (see above). Values have to be a <u>regexp</u> <u>decribes</u> the external reference number format which will be matched in subject field of the email.
ExtendedFollowUp###DynamicFieldMapping	Key has to be one of the identifier (see above). Values have to be dynamic field names in which the external reference numbers will be saved. this fields will be used for extended follow up.
ExtendedFollowUp###SortByAgeOrder	Sort order for the age of the follow up tickets.
ExtendedFollowUp###AllTicketStateTypesIncluded	State types of follow up tickets which will be considered. If open/pending tickets was selected and no one was found all tickets will be considered.

10.65 Ticket Processing – Type of email recipients in ticket history

When sending email answers from OTRS, recipients in Bcc will not be shown in article display and are not marked as Bcc recipients in ticket history.

10.65.1 Implementation

Type of recipient (To, Cc, Bcc) will be added to history type "SendAnswer"

10.65.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Modules/AgentTicketBulk.pm
 - KIX4OTRS/Kernel/Modules/AgentTicketCompose.pm

10.66 Translations for Layout Files

Furthermore there are some translations missing and some layout files do not translate given text.

10.66.1 Implementation

- Extended set of translations
- · Activated translations for layout files

10.66.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS_Ticket.xml
 - KIX40TRS/Kernel/Language/de OTRSaddition.pm
 - KIX40TRS/Kernel/Modules/AgentTicket*.pm
 - KIX4OTRS/Kernel/Modules/CustomerTicketZoom.pm
 - KIX40TRS/Kernel/Output/HTML/LayoutKIX40TRS.pm
 - KIX40TRS/Kernel/Output/HTML/Standard/Warning.tt



10.67 Configurable Favorite Icon

OTRS does not provide any option to change the used favorite icon.

10.67.1 Implementation

Extended layout files and SysConfig to provide a configurable favorite icon

10.67.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS Layout.xml
 - KIX4OTRS/Kernel/Output/HTML/Standard/CustomerHeader.tt
 - KIX40TRS/Kernel/Output/HTML/Standard/HTMLHead.tt
 - KIX4OTRS/Kernel/Output/HTML/Standard/Login.tt
 - var/httpd/htdocs/skins/Agent/default/img/icons/kix4otrs.ico

10.67.2 SysConfig Options

Key Name	Description
Producticon	The icon file to be used as favicon (relative to Frontend::ImagePath).

10.68 Save Form Content as Draft

Provide the possibility to save defined form content as draft to prevent data loss.

10.68.1 Implementation

- Created output filter to insert a save-as-draft-button to the right of the submit
- AJAX request save temporary content to the webupload cache and searches for existing drafts on load of each frontend modul which is affected

10.68.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS_Ticket.xml
 - KIX40TRS/Kernel/Language/de KIX40TRS.pm
 - KIX4OTRS/Kernel/Modules/SaveAsDraftAJAXHandler.pm
 - KIX4OTRS/Kernel/Output/HTML/OutputFilterAgentTicketSaveAsDraft.pm
 - var/.../Core.KIX4OTRS.js

10.68.2 SysConfig Options

Key Name	Description
Ticket::SaveAsDraftAJAXHandler###Attributes	Form elements and attributes which should be saved as draft (array)
Frontend::Output::FilterElementPre###AgentTicke tSaveAsDraft	Output filter to insert the save-as-draft-button into the current frontend modul
Frontend::Module###SaveAsDraftAJAXHandler	Module registration for the AJAX handler

10.69 Translate TicketType in DropDown

The ticket type in the DropDown box isn't translated in OTRS. It should be possible to translate it globally.

10.69.1 Implementation

- Extension of BuildSelection and BuildSelection|SON
- activatable in SysConfig

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10.69.1.1 Related Structures

- a Filelist
 - KIX40TRS/Kernel/Config/Files/KIX40TRS Ticket.xml
 - KIX40TRS/Kernel/Language/de KIX40TRS.pm
 - KIX40TRS/Kernel/Output/HTML/LayoutKIX40TRS.pm

10.69.2 SysConfig Options

Key Name	Description
Ticket::TypeTranslation	Defines whether the ticket type should be translated in the selection box. (Default: No)

10.70 Ticket-ACL - Hide Process Ticket Tab

With Release 5.0 a new tab was introduced. This process ticket tab should only be show in a ticket is a process ticket.

10.70.1 Implementation

· New ACL created which hides the process ticket tab

10.70.2 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/System/Ticket/Acl/HideProcessTicketTabs.pm
 - KIX4OTRS/Kernel/Config/File/KIX4OTRS TicketZoom.xml

10.70.3 SysConfig Options

Key Name	 Description
Ticket::Acl::Module###995_HideProcessTicketTabs	Ticket-ACLs to define shown tabs if ticket is process ticket.

10.71 TicketZoom – Show Only Realname or Realname and Email Address in Article View

With OTRS 3.2.x only the realname is displayed in article detail view. Define either realname or realname and email address should be displayed in article list and in article detail view via SysConfig.

10.71.1 Implementation

• Two new SysConfig keys created to define the selection

10.71.2 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS_TicketZoom.xml
 - KIX4OTRS/Kernel/Language/de_KIX4OTRSTicketZoomTab.pm
 - KIX4OTRS/Kernel/Modules/AgentTicketZoomTabArticle.pm

10.71.3 SysConfig Options

· Key Name	 Description
Ticket::Frontend::AgentTicketZoomTabArticle###ArticleListFrom	Defines either <u>realname</u> or <u>realname</u> and email address should be shown in the article list.

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• Key Name	Description
	Defines either realname or realname and email address should be shown in the article detail view.

10.72 Ticket-ACL - Show or Hide Ticket Tabs

Expand predifined acl actions by ticket tabs actions

10.72.1 Implementation

 New action keys inserted in ACLKeysLevel3::Actions and modification of AgentTicketZoom to deal with these new action keys

10.72.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Modules/AgentTicketZoom.pm
 - KIX4OTRS/KIX4OTRS.pm

10.72.2 SysConfig Options

Key Name	Description
ACLKeysLevel3::Actions###100-Default	Added tab related actions like AgentTicketZoom###0120-LinkedObjects

10.73 Show Merge Link in Merged Ticket

Provides a link to the new ticket the current ticket was merged to.

10.73.1 Implementation

· Created output filter to insert the link

10.73.1.1 Related Structures

- a Filelist
 - KIX40TRS/Kernel/Config/Files/KIX40TRS_Ticket.xml
 - KIX4OTRS/Kernel/Output/HTML/OutputFilterAgentTicketMergeLink

10.73.2 SysConfig Options

Key Name	Description
Frontend::Output::FilterElementPost###AgentTick etMergeLink	Output filter to insert the merge link

10.74 Ticket Processing – Remove Article Flags on Ticket Close

Article flags could be removed on ticket close. A SysConfig key defines if users could choose to delete flags or not.

10.74.1 Implementation

- SysConfig key to choose the behavoir by administration
- SysConfig key to define an (agent) user preference to select user-specific behavior of article flag deletion
- event-module to delete the article flags on ticket close

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10.74.1.1 Related Structures

- a Filelist
- KIX4OTRS/Kernel/Config/Files/KIX4OTRS PreferencesExtensions.xml
- KIX4OTRS/Kernel/Config/Files/KIX4OTRS TicketStateWorkflow.xml
- KIX4OTRS/Kernel/Config/Files/KIX4OTRS TicketZoom.xml
- KIX40TRS/Kernel/Language/de KIX40TRS.pm
- KIX40TRS/Kernel/Output/HTML/PreferencesRemoveArticleFlags.pm
- KIX40TRS/Kernel/Output/HTML/Standard/AgentPreferences.tt
- KIX40TRS/Kernel/System/Ticket/TicketExtensionsKIX40TRS.pm
- KIX4OTRS/Kernel/System/Ticket/Event/RemoveArticleFlagsOnTicketClose.pm
- KIX4OTRS.sopm

10.74.2 SysConfig Options

Key Name	Description
PreferencesGroups###RemoveArticleFlags	defines user preference to select behavior of flag deletion
Ticket::EventModulePost###955-RemoveArticleFla gsOnTicketClose Registration for the ticket event module remove articleFla flags on ticket close	
Ticket::Frontend::AgentTicketZoomTabArticle###ArticleFlagsRemoveOnTicketClose	administrativ definition of remove behavior of each article flag

10.75 Ticket Processing – new ticket event "TicketMergeTarget"

The "TicketMerge" event will be triggered in relation to the merged ticket. This doesn't allow to inform the owner or responsible of the target ticket, which will be far more important in a ticket process. Therefore a new ticket event "TicketMergeTarget" will be introducted, which is basically an inversion of the "TicketMerge" event.

10.75.1 Implementation

- Trigger the new event with inverted params
- rename the Param "MainTicketID" to "MergedTicketID" to be more clearly

10.75.1.1 Related Structures

- a Filelist
- KIX40TRS/Kernel/System/Ticket/TicketExtensionsKIX40TRS.pm

10.75.2 SysConfig Options

Key Name	Description
Events###Ticket	Has to be extended manually to make the new event available for event-based notifications.

10.76 KIXSideBar - Show Dynamic Fields

Shows dynamic fields in sidebar module. User could decide which dynamic fields to show and if access given user could alos edit dynamic field content.

10.76.1 Implementation

- New KIXSidebar modul created
- KIXSidebar-handling added to relevant frontend modules



10.76.1.1 Related Structures

- a Filelist
 - KIX40TRS/Kernel/Config/Files/KIX40TRS KIXSidebar.xml
 - KIX40TRS/Kernel/Modules/IXSidebarDynamicFieldAJAXHandler.pm
 - KIX4OTRS/Kernel/Output/KIXSidebarDynamicField.pm
 - KIX4OTRS/Kernel/Output/Standard/AgentKIXSidebarDynamicField.tt
 - var/httpd/htdocs/js/Core.AJAX.js

10.76.2 SysConfig Options

Key Name	Description
Frontend::KIXSidebarBackend###DynamicField	Activates and integrates the KIX sidebar module
Frontend::Module###KIXSidebarDynamicFieldAJAXHandler	Activates and integrates the AJAXHandler in agenten frontend
Ticket::Frontend::KIXSidebarDynamicField# ##DynamicField	Defines which dynamic fields could be shown

10.77 Customer Ticket Search Result for Print Opens in New Tab

Search result for search result type print could be opened in new window if sysconfig key set.

10.77.1 Implementation

- SysConfig key added
- Outputfilter created

10.77.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/de_KIX4OTRSCustomerFrontend.pm
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS CustomerFrontendAdoptions.xml
 - KIX4OTRS/Kernel/Output/OutputFilterCustomerSearchResult.pm
 - var/httpd/htdocs/js/Core.Agent.Search.js

10.77.2 SysConfig Options

Key Name	Description
Frontend::Output::FilterElementPre###Cust omerSearchResult	Output-filter registration
Ticket::Frontend::CustomerTicketSearch## #OpenSearchResultPrintlnNewTab	Decide whether result should be opened in new tab or not

10.78 Show Pending Time as Remaining Time or as Point of Time

User could decide if pending time should bei shown as remaining time or as point of time.

10.78.1 Implementation

- Added user preference
- Added some code to each relevant frontend module



10.78.1.1 Related Structures

- a Filelist
 - KIX40TRS PreferencesExtensions.xml
 - KIX4OTRS/Kernel/Language/de_KIX4OTRSPreferences.pm
 - KIX4OTRS/Kernel/Modules/AgentTicketPrint.pm
 - KIX40TRS/Kernel/Output/DashboardTicketGeneric.pm
 - KIX40TRS/Kernel/Output/KIXSidebarTicketInfo.pm
 - KIX40TRS/Kernel/Output/LinkObjectTicket.pm
 - KIX4OTRS/Kernel/Output/TicketOverviewSmall.pm
 - KIX4OTRSITSMConfigItem/Kernel/Modules/AgentTicketPrint.pm

10.78.2 SysConfig Options

Key Name	Description
PreferencesGroups###DisplayPendingTime	Defines user preference

10.79 User Defined Target Identifier in Phone and Email

Target identifier for linked objects in Email and Phone tickets could be set by SysConfig key.

10.79.1 Implementation

- · SysConfig key added
- Created outputfilter to replace the identifier

10.79.1.1 Related Structures

- a Filelist
 - KIX40TRS PreferencesExtensions.xml
- KIX40TRS TicketActions.xml
- OutputFilterLinkObjectTargetIdentifier.pm
- KIX4OTRS ITSMConfigItem.xml
 - KIX4OTRS/Kernel/Language/de_KIX4OTRSPreferences.pm
 - KIX40TRS/Kernel/Modules/AgentTicketPrint.pm
 - KIX40TRS/Kernel/Output/DashboardTicketGeneric.pm
 - KIX40TRS/Kernel/Output/KIXSidebarTicketInfo.pm
 - KIX40TRS/Kernel/Output/LinkObjectTicket.pm
 - KIX40TRS/Kernel/Output/TicketOverviewSmall.pm
 - $\bullet \quad \texttt{KIX4OTRSITSMConfigItem/Kernel/Modules/AgentTicketPrint.pm}$

10.79.2 SysConfig Options

Key Name	Description
Ticket::LinkObjectTargetIdentifier	Defines the target identifier
Frontend::Output::FilterElementPost###LinkObjectTargetIdentifier	Outputfilter to replace identifier

10.80 Service View - Display as Tree/Drop Down

 In default OTRS, the service view layout might be not useful or confusing with many listed services



- The service view layout can be chosen as a user preference
 - Tree based
 - Shows all available services in a tree as known from file system explorer
 - Drop down
 - Shows all sub-services which are available in currently selected service as a drop down box
 - On selection of a sub-service from the drop down list, the queue view moves to the selected sub-service

10.80.1 Implementation

- Depending on preferred service view the current representation is build by the corresponding function
- New agents preferences option

10.80.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS ServiceView.xml
 - KIX40TRS/Kernel/Language/de KIX40TRS.pm
 - KIX40TRS/Kernel/Modules/AgentTicketService.pm
 - KIX4OTRS/Kernel/Output/HTML/Standard/AgentTicketService.tt
 - KIX4OTRS/Kernel/Output/HTML/Standard/AgentTicketServiceTree.tt
 - KIX4OTRS/Kernel/Output/HTML/Standard/AgentTicketServiceDropDown.tt
 - var/httpd/htdocs/skins/Agent/KIX4OTRS/css/Core.AgentTicketService.css

10.80.2 SysConfig Options

Key Name	Description
PreferencesGroups###ServiceViewLayout	Agent preferences registration for selecting a service view layout.

10.81 KIXSideBar - Checklist

Allows to create a list of tasks. State of these tasks could be changed by user.

10.81.1 Implementation

- · New KIXSidebar modul created
- KIXSidebar-handling added to relevant frontend modules

10.81.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS_KIXSidebar.xml
 - KIX40TRS/Kernel/Language/de KIX40TRS.pm
 - $\bullet \quad \texttt{KIX4OTRS/Kernel/Modules/KIXSidebarChecklistAJAXHandler.pm}$
 - KIX40TRS/Kernel/Output/HTML/KIXSidebarChecklist.pm
 - KIX40TRS/Kernel/Output/HTML/Standard/AgentKIXSidebarChecklist.tt
 - $\bullet \quad \texttt{KIX4OTRS/Kernel/Output/HTML/Standard/AgentKIXSidebarChecklistTable.tt}$
 - KIX4OTRS/Kernel/System/Ticket/TicketExtensionsKIX4OTRS.pm
 - var/httpd/htdocs/js/Core.KIX4OTRS.KIXSidebarChecklist.js

10.81.2 SysConfig Options

Key Name	Description
Frontend::KIXSidebarBackend###Checklist	Activates and integrates the KIX sidebar module
Frontend::Module### KIXSidebarChecklistAJAXHandler	Activates and integrates the AJAXHandler in agenten frontend
Ticket::Frontend::KIXSidebarChecklist###It	Defines the default item state for new items. It should be one of

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Key Name	Description
emStateDefault	the item states out of the list below.
Ticket::Frontend::KIXSidebarChecklist###It emState	Defines all possible item states for the checklist sidebar. Key has to be unique and used for Statelcon list and StateStyle list below.
Ticket::Frontend::KIXSidebarChecklist###It emStateIcon	Defines the item state icons for the item states defined above.
Ticket::Frontend::KIXSidebarChecklist###It emStateStyle	Defines the item state styles for the item states defined above. Use CSS-styles.
Ticket::Frontend::KIXSidebarChecklist##N onEditableTicketStates	Defines all the ticket states in which the checklist cannot be changed.
Ticket::Frontend::KIXSidebarChecklist##N onEditableTicketStateTypes	Defines all the ticket state types in which the checklist cannot be changed.

10.82 Service View - Show Locked on Default

The service view layout can be chosen as a user preference

10.82.1 Implementation

- Use "show all" on default if set in agents preferences
- New agents preferences option

10.82.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS ServiceView.xml
 - KIX40TRS/Kernel/Modules/AgentTicketService.pm

10.82.2 SysConfig Options

Key Name	Description
PreferencesGroups###ServiceViewAll	Agent preferences registration for selecting a service view layout.



11 ITSM-Core Extensions

11.1 Display Service List

Added a filter to the SLA overview in admin interface. Added missing German translations.

11.1.1 Implementation

Added the filter widget to the layout generation / DTL

11.1.1.1 Related Structures

- a Filelist
 - KIX4OTRSITSMCore/Kernel/Language/de OTRSITSMaddition.pm
 - KIX4OTRSITSMCore/Kernel/Modules/AdminSLA.pm
 - KIX4OTRSITSMCore/Kernel/Output/HTML/Standard/AdminSLA.tt

11.1.2 SysConfig Options

Key Name	Description
n.a.	n.a.



12 ITSM-Incident-Problem-Man. Extensions

General Note: all modifications made to frontend and core modules, as well as to DTL templates have also been made to the corresponding files in ITSMIncidentProblemManagement. For our own convenience these files and modifications are not listed again in this chapter.

Affected masks are:

- AgentTicketActionCommon
- AgentTicketEmail
- AgenTicketPhone
- AgentTicketPrint
- AgentTicketZoomTabActionCommon
- CustomerTicketPrint
- CustomerTicketZoom

12.1 Modified AgentTicketZoom Configuration

Additional ticket data must be displayed in AgentTicketZoom itself and in tab "Summary". The customized use of dynamic fields and (impact criticality) requires custom methods for displaying human readable values in AgentTicketZoom.

12.1.1 Implementation

- · Methods for displaying the impact and criticality selection as string
- · Modified default configuration for data shown in AgentTicketZoom

12.1.1.1 Related Structures

- a Filelist
 - KIX4OTRSITSMIncidentProblem/Kernel/Config/Files/KIX4OTRS ITSMIncidentProblem.xml
 - KIX4OTRSITSMIncidentProblem/Kernel/System/Ticket/TicketExtensionsKIX4OTRSITSMIncidentProblem.pm

12.1.2 SysConfia Options

Key Name	Description
Ticket::CustomModule### 010-TicketExtensionsKIX4OTRSITSMIncidentProb	Overloads (redefines) existing functions in Kernel::System::Ticket. Used to easily add customizations.
lem	Kernel::System::Ticket::TicketExtensionsKIX4OTRS ITSMIncidentProblem
Ticket::Frontend::AgentTicketZoom### TicketDataKeys	Defines which ticket data parameters are displayed in direct data presentation.
	• 1000 => Type
	• 1050 => Lock
	• 1100 => State
	 1105Unquoted => PendingUntil
	 1200UnquotedNewLinedBy:: => Queue
	 1500UnquotedNewLinedBy:: => Service
	• 1502 => SLA
	1510 => CallMethod::TicketObject::TicketCriticalityStringGet t
	• 1520 => CallMethod::TicketObject::TicketImpactStringGet
	• 1700 => Owner



Key Name	Description
	• 1800 => Responsible
	4000 => CallMethod::TicketObject::TicketAccountedTimeGe t
Ticket::Frontend::AgentTicketZoomTabSummary ### TicketDataLabel	Defines preferred labels for internal ticket attribute names.
	PendingUntil => Pending Until
	Lock => Lock State
	 CallMethod::TicketObject::TicketImpactStringGet => Impact
	 CallMethod::TicketObject::TicketCriticalityStringGe t => Criticality
	 CallMethod::TicketObject::ReviewRequiredStringG et => Review Required

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13 ITSM-CMDB Extensions

13.1 Customer Assigned Config Items

- In default OTRS::ITSM, tickets can only be linked with CIs by the use of the "Link"-functionality in the GUI (either on ticket creation or within ticket processing). This is not very comfortable.
- Requirement:
 - Agent frontend:
 - Show config items which are assigned to the selected customer (with selection boxes for linking)
 - Link selected/marked config items with ticket upon ticket creation
 - Show config items whenever customer user details are shown (without selection boxes) if configured
 - Customer frontend:
 - Show config items assigned to currently logged in customer user in order to allow selection for ticket (if relevant)
 - Link selcted/marked config items with ticket upon ticket creation

13.1.1 Implementation

- Requires the use of attribute type "Customer" (or other identifying attribute values) in the relevant config item classes
- Enabling/Configuration via SysConfig:
 - Define search attribute key names for each relevant CI-class
 - Configure a comma-separated list of unique attribute key names per CI class; in these CI-classes the attribute values are checked for identity with the currently search customer user attribute
 - The calling action must be contained in AJAX-Request as additional parameter in order to evaluate if select boxes should be shown or not
 - Define shown config item attributes in customer table

13.1.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Modules/AgentTicketEmail.pm
 - KIX40TRS/Kernel/Modules/AgentTicketPhone.pm
 - $\bullet \quad \texttt{KIX4OTRS/Output/HTML/Standard/AgentTicketEmail.tt}\\$
 - KIX4OTRS/Output/HTML/Standard/AgentTicketPhone.tt
 - $\bullet \quad \texttt{KIX4OTRSITSMIncidentProblem/Kernel/Modules/AgentTicketEmail.pm}$
 - KIX4OTRSITSMIncidentProblem/Kernel/Modules/AgentTicketEmail.pm
 - $\bullet \quad \texttt{KIX4OTRSITSMIncidentProblem/Output/HTML/Standard/AgentTicketEmail.tt}$
 - KIX4OTRSITSMIncidentProblem/Output/HTML/Standard/AgentTicketPhone.tt
 - $\bullet \verb| KIX4OTRSITSMConfigManagement/Kernel/Config/Files/KIX4OTRS_ConfigItemLink.xml| \\$
 - $\bullet \verb| KIX4OTRSITSMConfigManagement/Kernel/Language/de_KIX4OTRSITSMConfigManagement.pm|\\$
 - KIX40TRSITSMConfigManagement/Kernel/Modules/CustomerTicketMessage.pm
 - KIX4OTRSITSMConfigManagement/Kernel/Output/HTML/CustomerUserConfigItem.pm
 - $\bullet \hspace{0.1in} \texttt{KIX4OTRSITSMConfigManagement/Kernel/Output/HTML/LayoutKIX4OTRSITSMConfigManagement.pm} \\$
 - KIX4OTRSITSMConfigManagement/Kernel/Output/HTML/Standard/AgentCustomerTableView.t
 - KIX4OTRSITSMConfigManagement/Kernel/Output/HTML/Standard/CustomerAssignedConfigIt emList.tt
 - KIX4OTRSITSMConfiqManagement/Kernel/Output/HTML/Standard/CustomerTicketMessage.tt

13.1.2 SysConfig Options

Key Name	Description
CustomerUserConfigItemLink::CISearchInClass es	 Defines for which Cl-classes which attribute-key-name is used to search for the relevant



Key Name	Description
	customer user attribute, e.g. UserLogin
	Default values
	Computer: Owner
	Hardware: Owner
	Software: Owner
CustomerUserConfigItemLink::LinkType	 Defines which link type is used for creation of links between selected config items and tickets (default RelevantTo)
Frontend::CustomerUser::Item###99-ConfigIt ems	Registration of customer information module to show related config items for selection or just display
	Default values
	Module => Kernel::Output::HTML::CustomerUserConfigItem
	 SearchAttribute: UserLogin
	 Defines which CustomerUser-Attribute is used for the config item lookup
	ShowSelectBoxActionRegExp: (AgentTicketPhone AgentTicketEmail)
	 Defines per regexp in which masks the select boxes are shown
	∘ ShowListOnly: 1
	 Defines if config item list is display if no select boxes are shown
Ticket::Frontend::CustomerTicketMessage## # AssignedConfigItem	 Allows customers to select the affected config items from the list of assigned config items.
Ticket::Frontend::CustomerTicketMessage## #	 Defines which customer user attribute is used to perform config item search.
AssignedConfigItemSearchAttribute	See for Frontend::CustomerUser::Item###99-ConfigItems.
CustomerUserConfigItemLink::ShownAttribute s	 Defines which attributes are shown in customer table.

13.2 Config Item Pre-Events

- Meanwhile OTRS knows config item events and uses them for writing the history of a config item (who change when which attribute). These events are triggered after the action has been performed, e.g. after a new version has been created
- Pre-Events are meant to allow complex plausibility check before a config item version is created, currently no useful example is delivered with KIX4OTRS.
 Possible scenarios are:
 - Ensure uniqueness of certain attributes, i.e. CI-names and prevent storage if name is already in use
 - Permit updates of certain attributes only if an equivalent change is linked to this config item

13.2.1 Implementation

- Requires a mechanism analog to TicketCustom-Modules in Kernel::System::Ticket in Kernel::System::ITSMConfigItem
- Extension of the core functionality of Kernel::System::ITSMConfigItem
- Modification of core methods to check for a corresponding method in super

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- class and (if available) call these instead of original methods (ConfigItemAdd, ConfigItemDelete, VersionAdd, VersionDelete, DefinitionDelete)
- In order to simplify the handling of "XML-Data-Hashes" some additional functions are provided (GetAttributeValuesByKey, GetAttributeContentsByKey, GetAttributeDataByType, GetKeyNamesByType, GetAttributeDefByTagKey, VersionDataUpdate, SetAttributeContentsByKey)
- Integrate Pre-Events analog to Post-Events
- All methods which trigger post events must also trigger Pre-Events
- A failed Pre-Event returns a hash ref with keys "Error" and "Message"
- The message of a failed Pre-Event in AgentConfigItemEdit is shown in the mask without creating a new CI-version

13.2.1.1 Related Structures

- a Filelist
 - KIX4OTRSITSMConfigManagement/Kernel/Config/Files/KIX4OTRS ITSMConfigItem.pm
 - KIX4OTRSITSMConfigManagement/Kernel/Config/Files/KIX4OTRS ITSMConfigItemEvents.pm
 - KIX4OTRSITSMConfigManagement/Kernel/Language/de_KIX4OTRSITSMConfigManagearticleed itment.pm
 - KIX40TRSITSMConfigManagement/Kernel/Modules/AgentITSMConfigItemEdit.pm
 - KIX4OTRSITSMConfigManagement/Kernel/Output/HTML/Standard/AgentITSMConfigItemEdit. tt
 - $\bullet \verb||| KIX4OTRSITSMConfigManagement/Kernel/System/ITSMConfigItem.pm|\\$
 - KIX4OTRSITSMConfigManagement/Kernel/System/ITSMConfigItem/Event/Test.pm
 - KIX4OTRSITSMConfigManagement/Kernel/System/ITSMConfigItem/DefinitionX.pm
 - $\bullet \quad \texttt{KIX4OTRSITSMConfigManagement/Kernel/System/ITSMConfigItem/ITSMConfigItemX.pm}$
 - KIX40TRSITSMConfiqManagement/Kernel/System/ITSMConfiqItem/VersionX.pm
 - KIX4OTRSITSMConfigManagement/Kernel/System/PreEventHandler.pm

13.2.2 SysConfig Options

Key Name	Description
ITSMConfigItem::EventModulePre###999-Test	Sample Pre-Event registration
ITSMConfigItem::EventModulePost###999-Test	Sample Post-Event registration
ITSMConfigItem::CustomModules### 001-CustomModule	Modified methods for Kernel::System::ITSMConfigItem
ITSMConfigItem::CustomModules### 010-CustomModule	Modified methods for Kernel::System::ITSMConfigItem::Definition
ITSMConfigItem::CustomModules### 020-CustomModule	Modified methods for Kernel::System::ITSMConfigItem::Version
ITSMConfigItem::CustomModules### 030-CustomModule	Registration of methods for Pre-Event handling

13.3 Tabbed Config Item Detail Mask

- · Reworked modular config item zoom mask
- Tab-based config item zoom mask
 - Allows to integrate other information in additional tabs
 - Tab contents are
 - Version list
 - · Shows the config items version data
 - Linked objects
 - Shows all directly linked objects in the complex view mode
 - Sort order of tables could be changed
 - Different columns could be selected
 - Link graph
 - Shows all config items of selected CI-classes which are linked by selected link-types with the current config item to a selectable link depth (n-th neighbor)

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13.3.1 Implementation

- Reorganization of frontend module AgentITSMConfigItemZoom
 - Keep right-hand part for general CI data (last modified, class, create date, etc.)
 - Main block is replaced by the tab handling especially sub XMLOutput
- · Create config item zoom tab modules
 - Tab "Config Item"
 - Tab "Linked Objects"
 - Tab "link object graph"

13.3.1.1 Related Structures

a Filelist

- KIX4OTRSITSMConfigManagement/Kernel/Config/Files/KIX4OTRS_ITSMConfigItem.xml
- $\bullet \verb| KIX4OTRSITSMConfigManagement/Kernel/Config/Files/KIX4OTRS_ITSMConfigItemZoom.xml| \\$
- KIX4OTRSITSMConfigManagement/Kernel/Language/de KIX4OTRSITSMConfigManagement.pm
- $\bullet \verb| KIX4OTRSITSMConfigManagement/Kernel/Modules/AgentITSMConfigItemZoom.pm|\\$
- KIX4OTRSITSMConfigManagement/Kernel/Modules/AgentITSMConfigItemZoomTabConfigItem. pm
- KIX4OTRSITSMConfigManagement/Kernel/Modules/AgentITSMConfigItemZoomTabLinkedObjec ts.pm
- KIX4OTRSITSMConfigManagement/Kernel/Output/HTML/ConfigItemZoomTabDummy.pm
- KIX4OTRSITSMConfigManagement/Kernel/Output/HTML/Standard/AgentITSMConfigItemZoom. tt.
- KIX4OTRSITSMConfigManagement/Kernel/Output/HTML/Standard/AgentITSMConfigItemZoomT abConfigItem.tt
- KIX4OTRSITSMConfigManagement/Kernel/Output/HTML/Standard/AgentITSMConfigItemZoomT abLinkedObjects.tt
- var/httpd/htdocs/js/thirdparty/jquery-ui-tabs-1.10.3/jquery.ui.tabs.js
- var/httpd/htdocs/skins/Agent/KIX4OTRS/css/KIX4OTRS.AgentITSMConfigItemZoomTab.css
- var/httpd/htdocs/skins/Agent/KIX4OTRS/css/KIX4OTRS.ITSM.Agent.Detail.css

13.3.2 SysConfig Options

Key Name	Description
Frontend::Module### AgentITSMConfigItemZoom	Frontend module registration for the agent interface.
	CSS: KIX4OTRS.AgentITSMConfigItemZoomTab.css
	JavaScript: Core.KIX4OTRS.TicketZoomTabs.js
Frontend::Module###	Frontend module registration for the agent interface.
AgentITSMConfigItemZoomTabConfigItem	CSS: KIX4OTRS.ITSM.Agent.Detail.css
	 JavaScript: thirdparty/jquery-ui-tabs-1.10.3/jquery.ui.tabs.js
Frontend::Module### AgentITSMConfigItemZoomTabLinkedObjects	Frontend module registration for the agent interface.
	 JavaScript: thirdparty/jquery-ui-tabs-1.10.3/jquery.ui.tabs.js
AgentITSMConfigItemZoomBackend### 0050-PreloadedDummy	Defines parameters for the AgentTicketZoomTab "DummyTab".
AgentITSMConfigItemZoomBackend### 0110-ConfigItem	Defines parameters for the AgentITSMConfigItemZoomTab "ConfigItem".
AgentITSMConfigItemZoomBackend### 0120-LinkedObjects	Defines parameters for the AgentITSMConfigItemZoomTab "Linked Objects".
AgentITSMConfigItemZoomBackend### 0130-LinkGraph	Defines parameters for the AAgentITSMConfigItemZoomTab "Linked Objects".
ITSMConfigItem::Frontend::AgentITSMConfigItemZoomTabConfigItem###Permission	Required permissions to use the ITSM configuration item zoom screen in the agent interface.
ITSMConfigItem::Frontend::AgentITSMConfigItemZoomTabLinkedObjects###Permission	Required permissions to use the ITSM configuration item zoom screen in the agent interface.

See next chapter for more information

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13.4 Link Graph Visualization

- · Generate a link graph to be displayed in browser
 - Add URLs to shown config items
- Required for config item zoom tab "Link Graph"

13.4.1 Implementation

- Frontend integration
 - Retrieve essential parameters (relevant CI classes, relevant link types, max. search depth, adjusting strength) from requested URL
 - Create traverse graph in iterative deepening depth first search starting from given config item
 - Create nodes (config item information as divs) and edges (links as a string)
 - Return a html as inline for the iframe and give information about the nodes, links and colors to Core.KIX4OTRS.AgentITSMConfigItemGraph.js
 - Use jsPlumb for generating the edges as svg-path-elements, make the nodes dragable and some parts of the graph editable

13.4.1.1 Related Structures

a Filelist

- KIX4OTRSITSMConfigManagement/Kernel/Config/Files/KIX4OTRS AgentObjectGraph.xml
- $\bullet \verb| KIX4OTRSITSMConfigManagement/Kernel/Language/de_KIX4OTRSITSMConfigManagement.pm|\\$
- KIX4OTRSITSMConfigManagement/Kernel/Language/de ITSMConfigItemGraph.pm
- KIX4OTRSITSMConfigManagement/Kernel/Modules/AgentObjectGraph.pm
- $\hbox{\tt KIX4OTRSITSMConfigManagement/Kernel/Modules/AgentITSMConfigItemZoomTabLinkGraph.p} \\ \hbox{\tt m}$
- KIX4OTRSITSMConfigManagement/Kernel/Output/HTML/Standard/AgentITSMConfigItemZoomT a
- bLinkGraph.tt
- KIX4OTRSITSMConfigManagement/Kernel/Output/HTML/Standard/AgentITSMConfigItemZoomT
- bLinkGraphIFrame.tt
- KIX4OTRSITSMConfigManagement/Kernel/Output/HTML/Standard/AgentITSMConfigItemZoomT
- bLinkGraphObjectAdditional.tt
- KIX4OTRSITSMConfigManagement/var/httpd/htdocs/skins/Agent/KIX4OTRS/css/KIX4OTRS.A
- entITSMConfigItemZoomTab.css
- KIX4OTRSITSMConfigManagement/var/httpd/htdocs/skins/Agent/KIX4OTRS/css/KIX4OTRS.A
- entITSMConfigItemGraph.css
- var/httpd/htdocs/js/Core.KIX40TRS.AgentITSMConfigItemZoomTabLinkGraph.js
- var/httpd/htdocs/js/Core.KIX4OTRS.AgentITSMConfigItemGraph.js
- var/httpd/htdocs/skins/Agent/default/img/GraphComputer.png
- var/httpd/htdocs/skins/Agent/default/img/GraphComputerGray.png
- var/httpd/htdocs/skins/Agent/default/img/GraphDefault.png
- var/httpd/htdocs/skins/Agent/default/img/GraphDefaultGray.png
- var/httpd/htdocs/skins/Agent/default/img/GraphHardware.png
- var/httpd/htdocs/skins/Agent/default/img/GraphHardwareGray.png
- var/httpd/htdocs/skins/Agent/default/img/GraphSoftware.png
- $\bullet \quad \text{var/httpd/htdocs/skins/Agent/default/img/GraphSoftwareGray.png}$
- var/httpd/htdocs/skins/Agent/default/img/GraphLocation.png
 var/httpd/htdocs/skins/Agent/default/img/GraphLocationGray.png
- var/httpd/htdocs/skins/Agent/default/img/GraphNetwork.png
- $\bullet \quad \text{var/httpd/htdocs/skins/Agent/default/img/GraphNetworkGray.png}$
- var/httpd/htdocs/skins/Agent/default/img/IncGreen.png
 var/httpd/htdocs/skins/Agent/default/img/IncRed.png
- var/httpd/htdocs/skins/Agent/default/img/IncYellow.png

13.4.2 SysConfig Options

Key Name	Description
Frontend::Module###	Frontend module registration for the agent interface.
AgentObjectGraph	CSS: KIX4OTRS.AgentITSMConfigItemGraph.css
	JavaScript:



Key Name	Description
	Core.KIX4OTRS.AgentlTSMConfigItemGraph.js
Frontend::Module### AgentITSMConfigItemZoomTabLinkGraph	Frontend module registration for the agent interface. • CSS: KIX40TRS.AgentITSMConfigItemZoomTab.css
	JavaScript: Core.KIX4OTRS.AgentITSMConfigItemZoomTabLinkGraph.js
AgentITSMConfigItemZoomBackend### 0130-LinkGraph	Defines parameters for the AgentITSMConfigItemZoomTab "LinkGraph".
ITSMConfigItem::Frontend::AgentITSMConfigItemZoomTabLinkGraph###IFrameConfig	Defines the parameters for the AgentObjectGraphIFrameDefault".
ITSMConfigItem::Frontend::AgentITSMConfigItemZoomTabLinkGraph###Permission	Required permissions to use the ITSM configuration item zoom screen in the agent interface.
Frontend::Agent::AgentObjectGraph### DefaultMaxLinkDepth	Defines the preselected maximum search depth for IDDFS (iterative deepening depth-first search) in CMDB graph.
	Default: 1
Frontend::Agent::AgentObjectGraph### LinkColors	Defines the colors for link visualization - links are just black if no color is given.
	• DependsOn => #407ca8
	• AlternativeTo => #95b740
	• ConnectedTo => #F58500
	• Includes => #323232
	RelevantTo => #95b7d6
	• LinkHover => #cc2222
Frontend::Agent::AgentObjectGraph### ClassAttributesToConsider	Defines which class-attribute should be considered for the icons. Sub-attributes are possible. Value must be key not name of attribute!
	Computer => Type
	• Location => Type
	Network => Type
	Hardware => Type
	Software => Type
	Default => Type
Frontend::Agent::AgentObjectGraph### ObjectClassImages	Defines the icons for node visualization - key could be a CI-Class (if applicable - e.g. "Computer") or a CI-Class followed by a triple colon and a value of the specified class-attribute (if attribute is "Type" - e.g. "Computer:::Server"). The Icon for a CI-Class is the fallback if no icon for the class-attribute is specified and "Default" is the fallback if no icon for a CI-Class is specified.
	Computer => GraphComputer.png
	Location => GraphLocation.png
	 Network => GraphNetwork.png
	Hardware => GraphHardware.png
	Software => GraphSoftware.png
	Default => GraphDefault.png
Frontend::Agent::AgentObjectGraph### ObjectClassImagesNotActive	Defines the icons for node visualization if CIs with a certain deployment state are not shown in CMDB overview (postproductive or configured) - key could be a CI-Class (if applicable - e.g. "Computer") or a CI-Class followed by a triple colon and a value of the specified class-attribute (if attribute is "Type" - e.g. "Computer:::Server"). The Icon for a CI-Class is the fallback if no icon for the class-attribute is specified and "Default" is the fallback if no icon for a CI-Class is specified. • Computer => GraphComputerGray.png
	<u> </u>

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Key Name	Description	
	 Location => GraphLocationGray.png 	
	Network => GraphNetworkGray.png	
	Hardware => GraphHardwareGray.png	
	Software => GraphSoftwareGray.png	
	Default => GraphDefaultGray.png	
Frontend::Agent::AgentObjectGraph### IncidentStateImages	Defines the icons for the incident-states - key is the state-type (if applicable - e.g. "operational").	
	incident => IncRed.png	
	operational => IncGreen.png	
	warning => IncYellow.png	

13.5 Configurable Propagation of Warning and Error CI-states

Add a plausibility check to ensure the uniqueness of config items regarding customizable attributes, e.g. name, IP address, etc. Uniqueness must be either within CI-class or within the entire CMDB.

13.5.1 Implementation

- Added SysConfig-Keys to choose link direction for propagation of incidents states.
- Extended ITSMConfigItem-methods to handle flexible link direction

13.5.1.1 Related Structures

- a Filelist
 - $\bullet \verb| KIX4OTRSITSMConfigManagement/Kernel/Config/Files/KIX4OTRS_ITSMConfigItem.xml|\\$
 - $\bullet \verb| KIX4OTRSITSMConfigManagement/Kernel/Language/de_KIX4OTRSITSMConfigManagement.pm|\\$
 - KIX4OTRSITSMConfigManagement/Kernel/System/ITSMConfigItem.pm

13.5.2 SysConfig Options

Key Name	Description
ITSMConfigItem::CILinkDirection	Configitem link direction for propagating of warning/error incident states.

13.6 ConfigItemInfo for KIXSidebar

Allows to access additional information about config item in KIXSidebar.

13.6.1 Implementation

- remove config item info block from ConfigltemZoom
- add new modul for KIXSidebarConfigItemInfo and use it with KIXITSMConfigItemZoom
- Change LayoutKIX4OTRS.pm to use it with ITSM

13.6.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS ITSMConfigItemZoom.xml
 - KIX4OTRS/Kernel/Output/HTML/LayoutKIX4OTRS.pm
 - KIX40TRSITSMConfigManagement/Kernel/Modules/AgentITSMConfigItemZoom.pm
 - KIX4OTRSITSMConfigManagement/Kernel/Output/HTML/Standard/AgentITSMConfigItemZoom.t



t

- KIX4OTRSITSMConfigManagement/Kernel/Output/HTML/Standard/AgentKIXSidebarConfigItem Info.tt
- KIX4OTRSITSMConfigManagement/Kernel/Output/HTML/KIXSidebarConfigItemInfo.pm

13.6.2 SysConfig Options

Key Name	Description
Frontend::AgentITSMC onfigItemZoom::KIXSi debarBackend###01 00-ConfigItemInfo	

13.7 CI-Pre-Event for Unique CI-Attribute Values

- Add a plausibility check to ensure the uniqueness of config items regarding customizable attributes, e.g. name, IP address, etc.
- Uniqueness must be either within CI-class or within the entire CMDB

13.7.1 Implementation

NOT IMPLEMENTED YET

13.7.1.1 Related Structures

- a Filelist
 - none
- b Table/Table Columns
 - None

13.7.2 SysConfig Options

Key Name	Description
n.a.	n.a.

13.8 Search for CI-class Specific Attributes in Link Search

While creating a link to an object of type "ITSMConfigItem" it should be possible to search for CI-class specific attributes.

13.8.1 Implementation

- extend capabilities of frontend module for ITSMConfigitem link search to display also other attributes of type text, general catalog or other except Date or DateTime (single input fields)
- extend search method use in ITSMConfigItem Link object to use ci-class specific attributes

13.8.1.1 Related Structures

- a Filelist
 - KIX4OTRSITSMConfigManagement/Kernel/Output/HTML/LinkObjectITSMConfigItem.pm
 - KIX4OTRSITSMConfigManagement/Kernel/System/LinkObject/ITSMConfigItem.pm
- b Table/Table Columns
 - None



13.8.2 SysConfig Options

Key Name	Description
n.a.	n.a.

13.9 Compare Different Versions of Config Items

Affords an opportunity to compare two different versions of one ConfigItem.

13.9.1 Implementation

- New tab in AgentITSMConfigItemZoom
- Show all available versions of selected Configltem in two tables
- Checkboxes for selection of version to compare
- Show changes in separat section

13.9.1.1 Related Structures

- a Filelist
 - KIX4OTRSITSMConfigManagement/Kernel/Config/Files/KIX4OTRS_ITSMConfigItem.xml
 - KIX4OTRSITSMConfigManagement/Kernel/Language/de KIX4OTRSITSMConfigManagement.pm
 - KIX4OTRSITSMConfigManagement/Kernel/Modules/AgentITSMConfigItemCompare.pm
 - KIX4OTRSITSMConfigManagement/Kernel/Output/HTML/Standard/AgentITSMConfigItemCompare.tt
 - Var/httpd/htdocs/skins/Agent/KIX4OTRS/css/KIX4OTRS.ITSM.Agent.Detail.css

13.9.2 SysConfig Options

Key Name	Description
Frontend::Module###AgentITSMConfigItemCompare	Frontend module registration for the agent interface.
ITSMConfigItem::Frontend::MenuModule###7 00-Compare	Shows a link in the menu to compare a configuration item with an other.
ITSMConfigItem::Frontend::AgentITSMConfigIt emCompare###Permission	Required permissions to use the compare ITSM configuration item screen in the agent interface.
	• ro
ITSMConfigItem::Frontend::AgentITSMConfigIt emCompare###CSSHighlight	Configure an <u>highlightning</u> for a row in the compare table depending on compare result.
	added
	• changed
	• deleted
ITSMConfigItem::Frontend::AgentITSMConfigItemCompare###CompareBehaviour	Changes the behaviour of Config Item Version Compare. "Structure" will mark swapped items as changed

13.10 Line Highlighting for Config Item Overview

Highlighting for config item lists to show their deployment state.

13.10.1 Implementation

· Add a highligh hash like used in QueueView

13.10.1.1 Related Structures

- a Filelist
 - KIX4OTRS/KIX4OTRSITSMConfigManagement/Kernel/Config/Files/KIX4OTRS_ITSMConfigItem.
 - KIX4OTRS/KIX4OTRSITSMConfigManagement/Kernel/Output/HTML/ITSMConfigItemOverviewSma 11.pm

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• KIX4OTRS/KIX4OTRSITSMConfigManagement/Kernel/Output/HTML/de_KIX4OTRSITSMConfigManagement.pm

13.10.2 SysConfig Options

Key Name	Description
ConfigItemOverview::HighlightMapping	Hash for highlight mapping

13.11 Configure States to Show Config Item List

In OTRS the used deployment state to display a config item list is hardcoded and not configurable. There are two new SysConfig keys. One to choose if postproductive states should be also shown and second to exclude some special deployment states.

13.11.1 Implementation

- Two new SysConfig keys added
- Extended functionality array to add postproductive states and to exclude all marked to exclude states.

13.11.1.1 Related Structures

- a Filelist
 - KIX4OTRSITSMCOnfigManagement/Kernel/Config/Files/KIX4OTRS ITSMConfigItem.xml
 - $\bullet \ \texttt{KIX4OTRSITSMCOnfigManagement/Kernel/Language/de_KIX4OTRSITSMConfigManagement.pm}$
 - KIX4OTRSITSMCOnfiqManagement/Kernel/Modules/AgentITSMConfiqItem.pm

13.11.2 SysConfig Options

Key Name	Description
ConfigItemOverview::ShowDeploymentStatePostproductive	Choose if postproductive states should be shown (yes/no, default: no)
ConfigItemOverview::ExcludedDeploymentStates	Add a comma-separated list of excluded deployment states. This is not active by default.

13.12 Custom View in ConfigItemOverview

In OTRS the agent could only select the SmallView in ConfigItemOverview with some predefined columns to show the config item content. Now it should be possible to define user-specific columns in this overview by using the settings-button.

13.12.1 Implementation

- CustomView added
- Added settings-button and possibility to push and pull columns in a user-specific sort order

13.12.1.1 Related Structures

- a Filelist
 - $\bullet \ \texttt{KIX4OTRSITSMConfigManagement/Kernel/Config/Files/KIX4OTRS_ITSMConfigItem.xml} \\$
 - $\bullet \verb| KIX4OTRSITSMConfigManagement/Kernel/Modules/AgentITSMConfigItem.pm|\\$
 - $\bullet \ \texttt{KIX4OTRSITSMConfigManagement/Kernel/Output/HTML/ITSMConfigItemOverviewCustom.pm} \\$
 - KIX4OTRSITSMConfigManagement/Kernel/Output/HTML/LayoutKIX4OTRSITSMConfigManagement .pm
 - KIX4OTRSITSMConfigManagement/Kernel/Output/HTML/PreferencesConfigItemOverviewColum n.pm
 - KIX4OTRSITSMConfigManagement/Kernel/Output/HTML/Standard/AgentITSMConfigItemOvervi ewCustom.tt
 - KIX4OTRSITSMConfigManagement/Kernel/Output/HTML/Standard/AgentITSMConfigItemOverviewNavBar.tt

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13.12.2 SysConfig Options

Key Name	Description
ITSMConfigItem::Frontend::Overview###Cust om	Modul registration

13.13 ConfigItemZoom - Quick Link

It should be possible to create links to a config item by using the quick link option like in ticket zoom link object tab. (10.44)

13.13.1 Implementation

- Quick link option added to tab
- SysConfig key added to switch on or off the quick link feature

13.13.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Output/HTML/QuickTicket.tt
 - KIX4OTRSITSMConfigManagement/Kernel/Output/HTML/Standard/AgentITSMConfigItemZoomTa bLinkedObjects.tt
 - KIX4OTRSITSMConfigManagement/Kernel/Output/HTML/AgentITSMConfigItemZoomTabLinkedOb jects.pm

13.13.2 SysConfig Options

Key Name	Description
ITSMConfigItem::Frontend::AgentITSMConfigIt emZoomTabLinkedObjects###QuickLink	Choose if quick link should be shown (yes/no, default: yes)

13.14 ConfigItemZoom - Create Email and Phone Ticket

It should be possible to create email tickets or phone tickets out of the config item zoom mask to link a ticket automaticly with this config item. Therefor two buttons were created which also could be disabled.

13.14.1 Implementation

- Added menu button and SysConfig key for email ticket and for phone ticket
- Using KIXSidebar LinkedCl preparation to create link with current config item

13.14.1.1 Related Structures

- a Filelist
- KIX4OTRSITSMConfigManagement/Kernel/System/Config/Files/KIX4OTRS_ITSMConfigItemZoom.xml
- KIX4OTRSITSMConfigManagement/Kernel/Modules/AgentTicketEmail.pm
- KIX4OTRSITSMConfigManagement/Kernel/Modules/AgentTicketPhone.pm
- KIX40TRSITSMConfigManagement/Kernel/Output/HTML/Standard/AgentTicketEmail.tt
- KIX4OTRSITSMConfigManagement/Kernel/Output/HTML/Standard/AgentTicketPhone.tt
- KIX40TRSITSMConfigManagement/Kernel/Modules/AgentITSMConfigItemZoomTabConfigItem.p
- KIX4OTRSITSMConfigManagement/Kernel/Output/HTML/Standard/AgentITSMConfigItemZoomTa bConfigItem.tt
- KIX4OTRSITSMIncidentProblem/Kernel/Modules/AgentTicketEmail.pm
- KIX4OTRSITSMIncidentProblem/Kernel/Modules/AgentTicketPhone.pm
- KIX4OTRSITSMIncidentProblem/Kernel/Output/HTML/Standard/AgentTicketEmail.tt
- KIX4OTRSITSMIncidentProblem/Kernel/Output/HTML/Standard/AgentTicketPhone.tt



13.14.2 SysConfig Options

Key Name	Description
ITSMConfigItem::Frontend::AgentITSMConfigItemZ oomTabConfigItem###CreateEmailTicket	Enables email ticket button
ITSMConfigItem::Frontend::AgentITSMConfigItemZ oomTabConfigItem###CreatePhoneTicket	Enables phone ticket button

13.15 ConfigItemZoom - ImageTab

Images belonging to a config item should be shown on an own tab. It is possible to get a preview or to delete the images. It could also be deposited a text describing this image.

13.15.1 Implementation

- New tab added
- Popup dialog after submitting a file to enter a describing text
- · Possibility to edit text and delete image
- Click on image gets preview
- · Image types could be set in SysConfig

13.15.1.1 Related Structures

- a Filelist
- KIX4OTRSITSMConfigManagement/Kernel/Modules/AgentITSMConfigItemZoomTabImages.pm
- KIX4OTRSITSMConfigManagement/Kernel/Output/HTML/Standard/AgentITSMConfigItemZoomTa bImages.tt

13.15.2 SysConfig Options

Key Name	Description
Frontend::Module###AgentITSMConfigItemZoomTabImages	Module registration
AgentITSMConfigItemZoomBackend###0140-Ima ges	Enables or disables tab
ITSMConfigItem::Frontend::AgentITSMConfigItemZ oomTabImages###ImageTypes	Image types which could be loaded

13.16 ConfigItem Import with Default Values

Set default values at config item import for attributes Name, InciState and DeplState.

13.16.1 Implementation

· Set default values if value is not defined

13.16.1.1 Related Structures

- a Filelist
- $\bullet \qquad \texttt{KIX40TRSITSMConfigManagement/Kernel/System/ImportExport/ObjectBackend/ITSMConfigItem.pm} \\$

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13.16.2 SysConfig Options

Key Name	Description
n.a.	n.a.

13.17 Search over all Classes in Config Item Search

It should be possible to search over all config item classes and to choose either to search over all attributes from all classes or to search over common attributes by user preference.

13.17.1 Implementation

- extended config item search to select "all" to search ober all classes
- extended custom config item overview to choose attribute columns to display search result for all classes
- new use preference to select config item search behavior
- extended ITSM config item quick link to use search over all classes

13.17.1.1 Related Structures

- a Filelist
- KIX4OTRSITSMConfigManagement/Kernel/Config/Files/KIX4OTRS ConfigItemLink.xml
- KIX4OTRSITSMConfigManagement/Kernel/Config/Files/KIX4OTRS ITSMConfigItem.xml
- KIX40TRSITSMConfigManagement/Kernel/Language/de KIX40TRSITSMConfigManagement.pm
- KIX4OTRSITSMConfigManagement/Kernel/Modules/AgentITSMConfigItemSearch.pm
- KIX4OTRSITSMConfigManagement/Kernel/Output/HTML/LayoutKIX4OTRSITSMConfigManagement
 .pm
- KIX40TRSITSMConfigManagement/Kernel/Output/HTML/LinkObjectITSMConfigItem.pm
- KIX4OTRSITSMConfigManagement/Kernel/Output/HTML/PreferencesConfigItemOverviewColum n.pm
- KIX40TRSITSMConfigManagement/Kernel/System/QuickLink/ITSMConfigItem.pm

b Table/Table Columns

None

13.17.2 SysConfig Options

Key Name	Description
PreferencesGroups###ConfigItemSearchAllBehavior	user preference to select search over all config items behavior

13.18 Access Attribute for Config Items

Access attribute could be added to config item class definition to restrict access by user groups. It affects config item overview, assigned config item sidebar, editing and displaying, importing and exporting config items. It should be used only once per config item class definition..

```
Class definitition, for example: {

Key => 'GroupAccess',
Name => 'GroupAccess',
Input => {

Type => 'ClGroupAccess',
},
CountMin => 0,
CountDefault => 0,
}
```

13.18.1 Implementation

extended item based config item permissions



new config item class attribute "CIGroupAccess" created

13.18.1.1 Related Structures

- a Files
 - $\verb|KIX40TRSITSMConfigManagement/System/ITSMConfigItem/Permission/ItemClassGroupCheck.| \\$
 - $\verb|KIX4OTRSITSMConfigManagement/System/ITSMConfigItem/XML/Type/CIGroupAccess.pm| \\$
- ${\tt KIX4OTRSITSMConfigManagement/Kernel/Output/HTML/LayoutKIX4OTRSITSMConfigManagement}$
- $\verb|KIXAOTRSITSMConfigManagement/Kernel/Output/HTML/ITSMConfigItemLayoutCIGroupAccess.| \\$
- b Table/Table Columns
 - None

13.18.2 SysConfig Options

Key Name	Description
n.a.	n.a.

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14 ITSM-Change Management Extensions

14.1 ChangeZoom - Tabbed Change Detail Mask

- Reworked modular change zoom mask
- Tab-based change zoom mask
 - · Allows to integrate other information in additional tabs
 - Tab contents are
 - Overview
 - · Shows the change and the WorkOrderGraph
 - Linked objects
 - Shows all directly linked objects in the complex view mode
 - Sort order of tables could be canged
 - Different columns could be selected

14.1.1 Implementation

- Reorganization of frontend module AgentITSMChangeZoom
 - Keep right-hand part for general change data
 - · Main block is replaced by the tab handling
- Create change zoom tab modules
 - Tab "Overview"
 - Tab "Linked Objects"

14.1.1.1 Related Structures

a Filelist

- KIX4OTRSITSMChangeManagement/Kernel/Config/Files/KIX4OTRS ITSMChangeZoom.xml
- KIX4OTRSITSMChangeManagement/Kernel/Modules/AgentITSMChangeZoom.pm
- KIX4OTRSITSMChangeManagement/Kernel/Modules/AgentITSMChangeZoomTabOverview.pm
- KIX4OTRSITSMChangeManagement/Kernel/Modules/AgentITSMChangeZoomTabLinkedObjects.pm
- KIX4OTRSITSMChangeManagement/Kernel/Output/HMTL/Standard/AgentITSMChangeZoom.tt
- KIX4OTRSITSMChangeManagement/Kernel/Output/HMTL/Standard/AgentITSMChangeZoomTabOve rview.tt
- KIX4OTRSITSMChangeManagement/Kernel/Output/HMTL/Standard/AgentITSMChangeZoomTabLin kedObjects.tt
- $\bullet \quad \texttt{KIX4OTRSITSMCore/Kernel/Output/HTML/Standard/FooterITSMZoomTab.tt} \\$
- KIX4OTRS.sopm
- var/httpd/htdocs/js/Core.KIX4OTRS.js
- var/httpd/htdocs/js/Core.KIX4OTRS.ITSMZoomTabs.js
- KIX4OTRS/Kernel/Output/HTML/LayoutLinkObject.pm

14.1.2 SysConfig Options

Key Name	Description
Frontend::Module###AgentITSMChangeZoo	Frontend module registration for the agent interface.
m	 CSS: ITSM.Agent.Default.css, ITSM.ChangeManagement.Default.css, ITSM.ChangeManagement.WorkorderGraph.css, ITSM.ChangeManagement.RTEContent.css,
	 JavaScript: <u>thirdparty/jquery-ui</u>-tabs-1.10.3/jquery.ui.tabs.js, <u>thirdparty/jquery-tablesorter</u>-2.0.5/jquery.tablesorter.j s, Core.UI.Table.Sort.js, Core.KIX4OTRS.ITSMZoomTabs.js, ITSM.Agent.ChangeManagement.WorkorderGraph.js
Frontend::Module###AgentITSMChangeZoomTabOverview	Frontend module registration for the agent interface.
Frontend::Module###AgentITSMChangeZoo	Frontend module registration for the agent interface.



Key Name	Description
mTabLinkedObjects	
AgentITSMChangeZoomBackend###0100-O verview	Defines parameters for the AgentITSMChangeZoomTab "Overview".
	Link, Title, Description, Block, Permission, CountMethod
AgentITSMChangeZoomBackend###0200-LinkedObjects	Defines parameters for the AgentITSMChangeZoomTab "Linked Objects".
	ink, Title, Description, Block, Permission, CountMethod

14.2 ChangeInfo for KIXSidebar

Allows to access additional information about a change in KIXSidebar.

14.2.1 Implementation

- remove change info block from ITSMChangeZoom
- add new modul for KIXSidebarChangeInfo and use it with KIXITSMChangeZoom
- Change LayoutKIX4OTRS.pm to use it with ITSM

14.2.1.1 Related Structures

- a Filelist
 - KIX4OTRS/Kernel/Config/Files/KIX4OTRS ITSMChangeZoom.xml
 - KIX40TRS/Kernel/Output/HTML/LayoutKIX40TRS.pm
 - KIX4OTRSITSMChangeManagement/Kernel/Modules/AgentITSMChangeZoom.pm
 - $\bullet \verb| KIX40TRSITSMChangeManagement/Kernel/Output/HTML/Standard/AgentITSMChangeZoom.tt | AgentITSMChangeMana$
 - KIX4OTRSITSMChangeManagement/Kernel/Output/HTML/Standard/AgentKIXSidebarChangeInfo .tt
 - KIX4OTRSITSMChangeManagement/Kernel/Output/HTML/KIXSidebarChangeInfo.pm

14.2.2 SysConfig Options

Key Name	Description
Frontend::AgentITSMC hangeZoom::KIXSideb arBackend###0100- ChangeInfo	

14.3 WorkOrderZoom - Tabbed WorkOrder Detail Mask

- Reworked modular change zoom mask
- Tab-based change zoom mask
 - Allows to integrate other information in additional tabs
 - Tab contents are
 - Overview
 - Shows the change and the WorkOrderGraph
 - · Linked objects
 - Shows all directly linked objects in the complex view mode
 - Sort order of tables could be changed
 - Different columns could be selected

14.3.1 Implementation

- Reorganization of frontend module AgentITSMChangeZoom
 - Keep right-hand part for general change data
 - Main block is replaced by the tab handling

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- Create change zoom tab modules
 - Tab "Overview"
 - · Tab "Linked Objects"

14.3.1.1 Related Structures

- a Filelist
 - KIX4OTRSITSMChangeManagement/Kernel/Config/Files/KIX4OTRS ITSMWorkOrderZoom.xml
 - $\bullet \quad \texttt{KIX4OTRSITSMC} \\ \texttt{ChangeManagement/Kernel/Modules/AgentITSMWorkOrderZoom.pm}$
 - KIX4OTRSITSMChangeManagement/Kernel/Modules/AgentITSMWorkOrderZoomTabOverview.pm
 - KIX4OTRSITSMChangeManagement/Kernel/Modules/AgentITSMWorkOrderZoomTabLinkedObjects .pm
 - $\bullet \verb||KIX4OTRSITSMC| hange \verb||Management| Kernel/Output/HMTL/Standard/AgentITSMWorkOrderZoom.tt| \\$
 - KIX4OTRSITSMChangeManagement/Kernel/Output/HMTL/Standard/AgentITSMWorkOrderZoomTab Overview.tt
 - KIX4OTRSITSMChangeManagement/Kernel/Output/HMTL/Standard/AgentITSMWorkOrderZoomTab LinkedObjects.tt
 - KIX4OTRSITSMCore/Kernel/Output/HTML/Standard/FooterITSMZoomTab.tt
 - KIX4OTRS.sopm
 - var/httpd/htdocs/js/Core.KIX4OTRS.js
 - var/httpd/htdocs/js/Core.KIX4OTRS.ITSMZoomTabs.js
 - KIX4OTRS/Kernel/Output/HTML/LayoutLinkObject.pm

14.3.2 SysConfig Options

Key Name	Description
Frontend::Module###AgentITSMWorkOrderZoom	 CSS: ITSM.Agent.Default.css, ITSM.ChangeManagement.Default.css, ITSM.ChangeManagement.RTEContent.css, ITSM.ChangeManagement.RTEContent.css, JavaScript:
Frontend::Module###AgentITSMWorkOrderZoomTabOverview	ITSM.Agent.ConfirmationDialog.js Frontend module registration for the agent interface.
Frontend::Module###AgentITSMWorkOrderZoomTabLinkedObjects	Frontend module registration for the agent interface.
AgentITSMWorkOrderZoomBackend###010 0-Overview	Defines parameters for the AgentITSMWorkOrderZoomTab "Overview". Link, Title, Description, Block, Permission, CountMethod
AgentITSMWorkOrderZoomBackend###020 0-LinkedObjects	Defines parameters for the AgentITSMWorkOrderZoomTab "Linked Objects". ink, Title, Description, Block, Permission, CountMethod

14.4 WorkOrderInfo for KIXSidebar

Allows to access additional information about a work order in KIXSidebar.

14.4.1 Implementation

- remove work order info block from ConfigltemZoom
- add new modul for KIXSidebarWorkOrderInfo and use it with KIXITSMWorkOrderZoom
- Change LayoutKIX4OTRS.pm to use it with ITSM
- added PlannedEffort and AccountedTime

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14.4.1.1 Related Structures

a Filelist

- KIX4OTRS/Kernel/Config/Files/KIX4OTRS ITSMWorkOrderZoom.xml
- KIX4OTRS/Kernel/Output/HTML/LayoutKIX4OTRS.pm
- KIX40TRSITSMChangeManagement/Kernel/Modules/AgentITSMWorkOrderZoom.pm
- KIX4OTRSITSMChangeManagement/Kernel/Output/HTML/Standard/AgentITSMWorkOrderZoom.tt
- KIX4OTRSITSMChangeManagement/Kernel/Output/HTML/Standard/AgentKIXSidebarWorkOrderInfo.tt
- KIX4OTRSITSMChangeManagement/Kernel/Output/HTML/KIXSidebarWorkOrderInfo.pm

14.4.2 SysConfig Options

Key Name	Description
Frontend::AgentITSM WorkOrderZoom::KIX SidebarBackend### 0100-ChangeInfo	Parameters for the KIXSidebar backend WorkOrderInfo

14.5 WorkOrderZoom / ChangeZoom - Quick Links

Link workorders / changes with other objects using the linked object tab. Based on the TicketZoom quick link object. (10.44)

14.5.1 Implementation

- Added autocomplete field to select guick and easy objects to link
- QuickLink backends are used to define search attributes and classes

14.5.1.1 Related Structures

a Filelist

- KIX4OTRS/Kernel/Output/HTML/QuickTicket.tt
- KIX4OTRSITSMChangeManagement/Kernel/Output/HTML/Standard/AgentITSMChangeZoomTab LinkedObjects.tt
- KIX4OTRSITSMChangeManagement/Kernel/Output/HTML/AgentITSMChangeZoomTabLinkedObj
- KIX4OTRSITSMChangeManagement/Kernel/Output/HTML/Standard/AgentITSMWorkOrderZoom TabLinkedObjects.tt
- KIX4OTRSITSMChangeManagement/Kernel/Output/HTML/AgentITSMWorkOrderZoomTabLinked Objects.pm

14.5.2 SysConfig Options

Key Name	Description
ITSMChange::Frontend::AgentITSMChangeZoomTab LinkedObjects###QuickLink	Enable quick link in linked objects tab (different backends have to be defined first)
ITSMWorkorder::Frontend::AgentITSMWorkOrderZoomTabLinkedObjects###QuickLink	Enable quick link in linked objects tab (different backends have to be defined first)



15. MasterSlave Extensions

15.1 WorkOrderZoom / ChangeZoom - Quick Links

Show MasterSlave functionality in KIX4OTRS bulk action

15.1.1 Implementation

· Added outputfilter and AJAX handler

15.1.1.1 Related Structures

- a Filelist
 - KIX4OTRSMasterSlave/Kernel/Config/Files/KIX4OTRS MasterSlave.xml
 - KIX4OTRSMasterSlave/Kernel/Language/de KIX4OTRS MasterSlave.pm
 - KIX4OTRSMasterSlave/Kernel/Modules/AgentTicketBulkMasterSlaveAJAXHandler.pm
 - $\small \bullet \quad \texttt{KIX4OTRSMasterSlave/Kernel/Output/HTML/OutputFilterAgentTicketBulkMasterSlave.p} \\ \quad \mathsf{m} \\$

15.1.2 SysConfig Options

Key Name	Description
Frontend::Output::FilterElementPre###OutputFilterAgentTicketBulkMasterSlave	Defines output filter to add master slave functionality
Frontend::Module###AgentTicketBulkMasterSlave AJAXHandler	Modules registration for AJAX handler



16. Modified Default SysConfig-Keys

This chapter lists SysConfig keys which are available in default OTRS but have been changed for KIX4OTRS.

Key Name	New Default Value
Frontend::Module###AgentITSMConfigItemZoom	Extended default OTRS-configuration to enable tab view.
Ticket::Frontend::CustomerTicketZoom###StateDefault	Changed required-flag due to KIX4OTRS-adoptions (this SysConfig-option does not need to be defined anymore).
Ticket::EventModulePost### 130-ForceStateChangeOnLock	Changed used Event-module to support ticket state workflow functionality
Producticon	Changed due to KIX4OTRS-layout
AgentLogo	Changed due to KIX4OTRS-layout
CustomerLogo	Changed due to KIX4OTRS-layout
Loader::Agent::DefaultSelectedSkin	Changed due to KIX4OTRS-layout
Loader::Customer::DefaultSelectedSkin	Changed due to KIX4OTRS-layout
PDF::LogoFile	Changed due to KIX4OTRS-layout
Frontend::NotifyModule###5-Ticket::TicketEscalation	Extended configuration-options to restrict shown ticket escalations to agents custom queues only
Frontend::Module###AgentTicketQueue	Extended default OTRS-configuration to enable new view modes.
Ticket::Frontend::OverviewSmall###ColumnHeader	Changed default selected value due to better usability.
Frontend::Module###AgentTicketZoom	Extended default OTRS-configuration to enable tab view.
Frontend::Module###AgentStats	Changed default OTRS-configuration due to better usability.
Frontend::Module###AdminCustomerUserService	Changed default OTRS-configuration due to better usability.
Frontend::Module###AdminCustomerCompany	Changed default OTRS-configuration due to better usability.
Frontend::Module###AdminCustomerUser	Changed default OTRS-configuration due to better usability.
Ticket::Frontend::MenuModule###300-Priority	Deactivated menu entry due to better usability.
Ticket::Frontend::PreMenuModule###300-Priority	Deactivated menu entry due to better usability.
Ticket::Frontend::PreMenuModule###440-Close	Deactivated menu entry due to better usability.
Ticket::Frontend::MenuModule###320-Link	Changed default position in menu due to better usability.
Ticket::Frontend::MenuModule###420-Customer	Changed default position in menu due to better usability.
Ticket::Frontend::MenuModule###430-Merge	Changed default position in menu due to better usability.
Ticket::Frontend::PreMenuModule###445-Move	Changed default position in menu due to better usability.
Frontend::ToolBarModule###9-Ticket::TicketSearch Profile	Activated by default
Frontend::ToolBarModule###10-Ticket::TicketSearc hFulltext	Activated by default and changed size
Frontend::ToolBarModule###11-CICSearchCustome rID	Activated by default and changed size



Key Name	New Default Value
Frontend::ToolBarModule###11-CICSearchCustome rUser	Activated by default and changed size

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17. More additional SysConfig-Keys

This chapter lists SysConfig keys which are new in KIX4OTRS and not directly related to any of the extensions.

Key Name	New Default Value
ACLKeysLevel3::Actions###100-KIX4OTRS	Extends the frontend actions for ACL configuration.