

User Pre-Release Notes

for RADNET rRIS

Build 1.06

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1. Purpose

This document describes some of the new features and changes implemented in rRIS as of the end of Sprint 6. This pre-release version of rRIS is referred to as Build 1.06.

Only features which can be visually demonstrated to the user will be outlined in this document.

2. Intended Audience

This document is created by the rRIS Development team for the RadNet RIS management team.

3. Installing/Accessing the Application

The client installer for rRIS is still in the early development stages. For now, users can access the system by remoting to the rRIS test server in Baltimore as follows:

1. Start Remote Desktop Connection and specify IP 10.120.0.152
2. Username: Radnet domain account
3. Password: Radnet domain password
4. Double click the rRIS icon on the desktop or go to Start→All Programs→rRIS
5. Login User: terry
6. Login Password: ris

If you experience difficulties accessing the application, please do not hesitate to contact Spencer MacDougall with the PEI RIS Development Team.

4. New Features and Enhancements

Support Multiple Addresses in User Manager

The User Manager screen has been expanded in Sprint 6 to include a data grid to support one or more addresses per user. This pattern is required to support not only internal users but also referring doctors who quite often will have more than one office location resulting in multiple possibilities for report delivery.

molyneux	kevin			M	Y
➤ Spencer	MacDougall		8/4/2004 12:00:00...	M	Y
powell	stephen			M	Y
stuart	stephen			M	Y

User Information Preferences

General Information

First Name: Last Name: Middle Name:

Name: MacDougall Spencer

Gender: Male

Mobile #: 902-438-1111 Email Address: spencer@mail.com

Account Information

User Name: spencer ☒ Active

Password:

User Group: Administrator x Technologist x Scheduling x

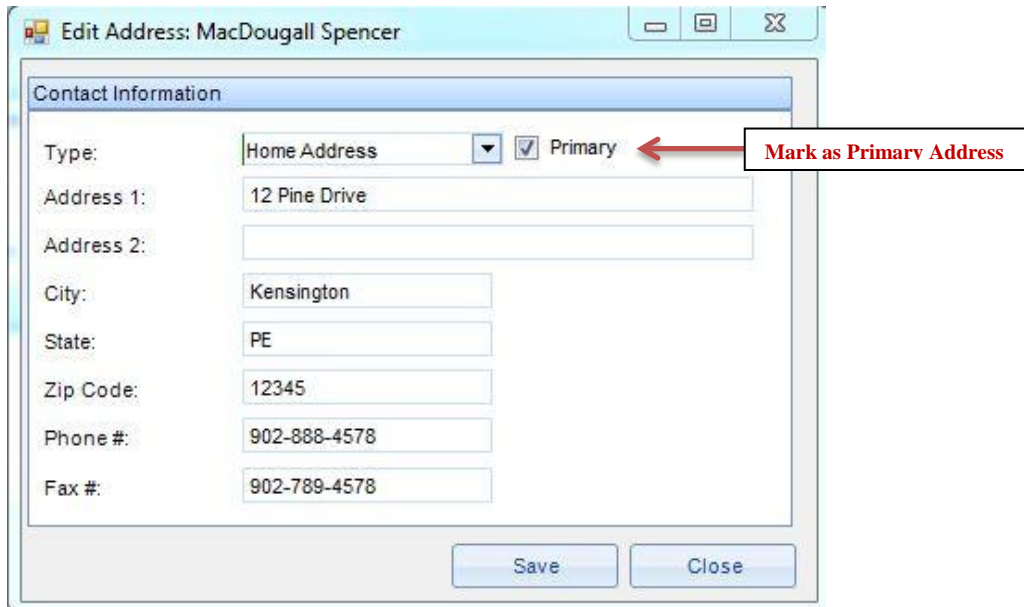
Address	Contact
12 Pine Drive Kensington, PE 12345	*Home Address Phone: 902-888-4578 Fax: 902-789-4578
1345 Duke Street Suite 103 Summerside, PE 87654	Work Address Phone: 902-436-4561 Fax: 902-478-4578
➤ 7459 Central Street Charlottetown, PE 78456	Work Address Phone: 902-888-7412 Fax: 902-888-9745

Edit Add Remove

Figure 4.1 – User Manager Screen with Address Grid

The address grid will allow the user to see three to four addresses at a time without having to scroll. When editing or adding an address a modal popup window is displayed on top of the current screen so again no scrolling is required.

Each user can only have one primary address. In the above example, the Home Address is marked as primary and is visually identified with a “*”. Required fields can also be enforced in the in the address grid. In the example, address type is required and the user is forced to complete it before he or she can save the entry.



The image shows a modal window titled "Edit Address: MacDougall Spencer". It contains a "Contact Information" section with the following fields:

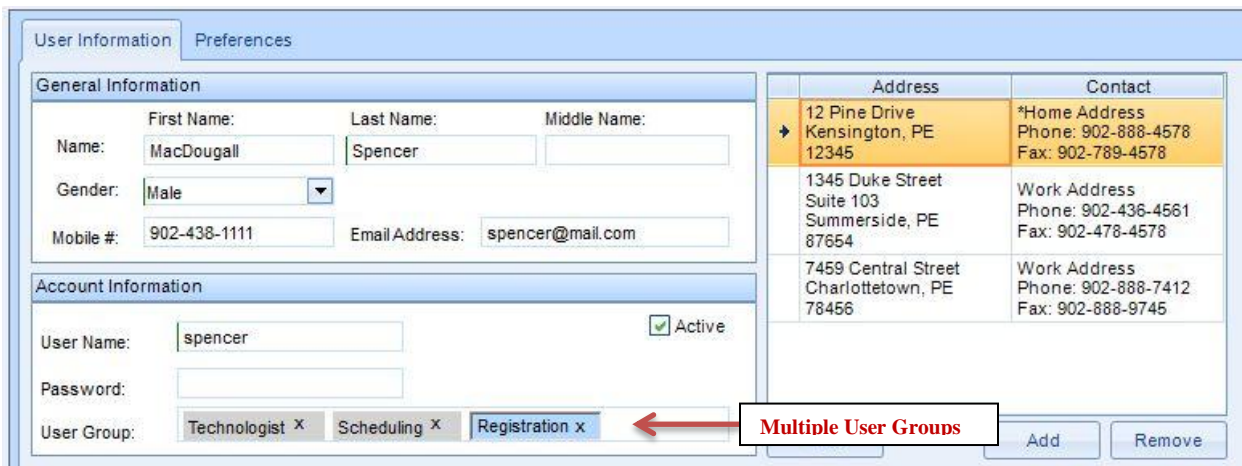
- Type: Home Address (dropdown menu)
- Primary: ☒ (checkbox)
- Address 1: 12 Pine Drive
- Address 2: (empty field)
- City: Kensington
- State: PE
- Zip Code: 12345
- Phone #: 902-888-4578
- Fax #: 902-789-4578

At the bottom are "Save" and "Close" buttons. A red arrow points from a text box labeled "Mark as Primary Address" to the "Primary" checkbox.

Figure 4.2 – Modal Window to Add/Edit an Address in User Manager

Support Multiple User Groups in User Manager

Similar to addresses, there is also a requirement for a user to belong to one or more user group. This can now be defined in the User Manager screen. Many of the permissions in the application will be driven from user groups. Functionality that is available to a radiologist should not be accessible by a scheduler and vice versa. However, there will often be times where a user's job responsibility will span more than one group. For example, User A both schedules and arrives patients and therefore is required to belong to both the Scheduling and Registration user groups.



The image shows the "User Information" tab in the User Manager screen. It contains two sections: "General Information" and "Account Information".

General Information:

- Name: First Name: MacDougall, Last Name: Spencer, Middle Name: (empty)
- Gender: Male (dropdown menu)
- Mobile #: 902-438-1111, Email Address: spencer@mail.com

Account Information:

- User Name: spencer
- Password: (empty field)
- User Group: Technologist x, Scheduling x, Registration x (checkboxes)
- Active: ☒ (checkbox)

At the bottom are "Add" and "Remove" buttons. A red arrow points from a text box labeled "Multiple User Groups" to the "Registration x" checkbox.

Address	Contact
12 Pine Drive Kensington, PE 12345	*Home Address Phone: 902-888-4578 Fax: 902-789-4578
1345 Duke Street Suite 103 Summerside, PE 87654	Work Address Phone: 902-436-4561 Fax: 902-478-4578
7459 Central Street Charlottetown, PE 78456	Work Address Phone: 902-888-7412 Fax: 902-888-9745

Figure 4.3 – Multiple User Groups Applied to User

rRIS Client Installer

During both Sprint 5 and 6 there has been much effort invested in the development of the client installer. The installer functions under the assumption that there is a common shared network drive that is accessible by site users. The ris development team uses G:\RISDeployment as the shared drive but the location is configurable.

There are two main components to installing the application:

1. Core Install
2. Build Updates

The core install will require administrative rights and would typically need to be installed on each client pc before go-live. To install the core application, the user would simply run the Install.bat file located in the G:\RISDeployment\Core directory. By running the batch file all previous versions of rRIS are uninstalled and the new one is installed. This is all performed silently, without any required user interaction.

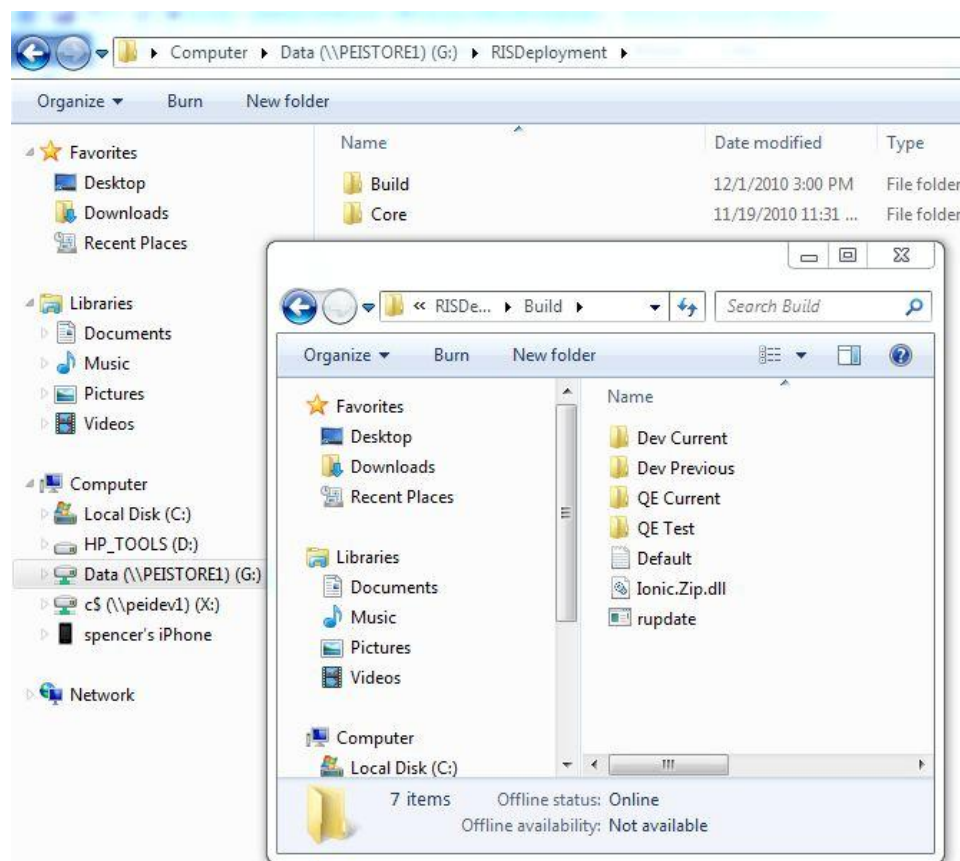


Figure 4.4 – Installer Shared Drive

The Build directory will contain one or more builds available to the users. Consider the following requirements that have been satisfied with this approach:

1. This will allow a site to maintain multiple schemas, like one for production, training, and testing.
2. A default build can be specified. The login screen will automatically select the default build. Typically this will be the production build.
3. Users can be blocked from accessing builds by simply not granting permission to the subdirectories. If a site does not want users accessing the testing build, simply do not grant access to the testing directory. Testing will not show up on the System dropdown menu.
4. A user (with proper permission) is able to switch between different versions of the application with minimal effort required.
5. Current version number is displayed on the Login screen.
6. The ris administrator can easily push builds out to the users by simply overwriting the production files with the new release. The users will automatically install the new release on the next login.

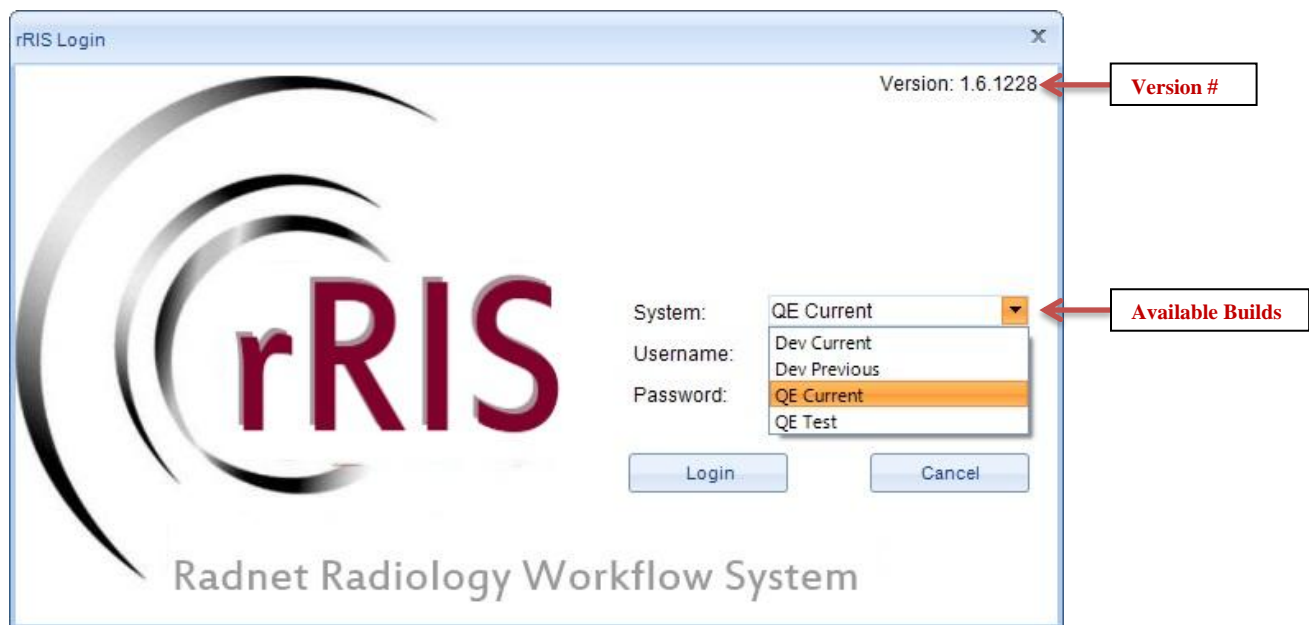


Figure 4.5 – Login Screen showing Version and Available Builds

Shortcut Keys

The development team has been ensuring that the application is keyboard friendly. The following is a list of shortcut keys that are currently supported:

Typical Screens:

Ctrl+W	Close a Screen
Ctrl+S	Save and Close a Screen
Ctrl+F	Focus Patient Search Textbox
F4	In a dropdown box, opens and closes the list In a date input, opens the calendar selection popup In a multi type ahead opens the type-ahead suggestions
Alt+F4	Closes the RIS Program
Alt+Tab	Standard Windows Keys to cycle though active windows programs
Ctrl+Tab	Cycles though active RIS Screens (such as Add Patient, WLs, etc.)
Ctrl+(↑ or ↓)	Cycles though current RIS Screen's tabs
Ctrl+Shift+(↑ or ↓)	Moves the selection up or down, in a screen's DataGrid (re: User Manager)
ESC	Closes a popup window (as a cancel)
O	Closes a popup window with OK
C	Closes a popup window with Cancel (similar for Y, N, etc).
Ctrl+A	Selects all text in a textbox
Ctrl+C	Copy selected text
Ctrl+V	Paste Selected text
Ctrl+X	Copy and delete selected text
Ctrl+N+...	Opens a data screen for a <u>N</u> ew item such as:
Ctrl+N+P	<u>N</u> ew <u>P</u> atient
Ctrl+N+O	<u>N</u> ew <u>O</u> der
Ctrl+E+...	Opens a data <u>E</u> dit screen for an item such as:
Ctrl+E+P	<u>E</u> dit <u>P</u> atient
Ctrl+E+O	<u>E</u> dit <u>O</u> der
Ctrl+L+...	Opens a Worklist screen such as:
Ctrl+L+A	Arrived Worklist (aka Reception WL)
Ctrl+L+T	Tech WL

Ctrl+L+O	Orders WL
Ctrl+L+S	Scheduled WL

In a Worklist screen:

F5	Refresh Worklist
Ctrl+←	Previous day in dated Worklists
Ctrl+→	Next day in dated Worklists
Enter	TBD

In the Patient Search Screen:

ALT+S	Perform Search
ALT+R	Perform Reset
ALT+L	Goto Last Name
ALT+F	Goto First Name
ALT+B	Goto Birth Date
ALT+M	Goto MRN
ALT+o	Check Sounds Like
CTRL+T	Toggle/Swap First & Last Name

Additional Worklist View Features

The Worklist View framework has the following list of enhancements included in Build 1.06:

1. The ability to rename a view or change its type from a person to a group view or vice versa.
2. The ability to delete a view.
3. The ability to overwrite or update the filter criteria for the selected view.

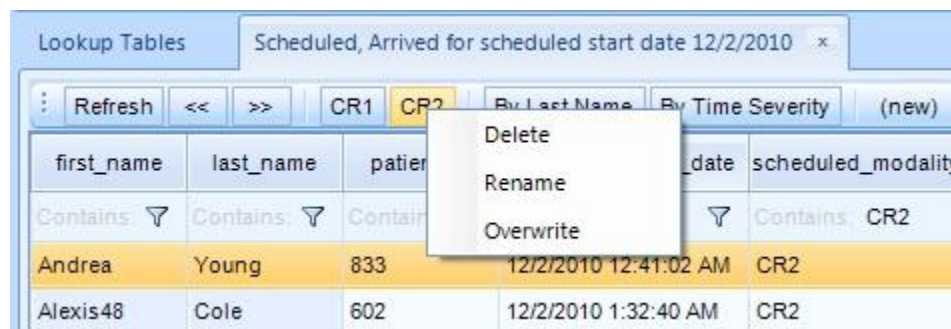


Figure 4.6 – Worklist View Context Menu

- Added permissions to access the editing features of both personal and group views. Permission can be enabled so only system administrators can update group views.



	Group Name	access string code	
→	Contains: 	NotContain: Clinical.EditOrder 	Contains:
	Administrator	WorklistViews.Group.Edit	Full
	Administrator	WorklistViews.User.Edit	Full
	Scheduling	WorklistViews.User.Edit	Full
	Technologist	WorklistViews.User.Edit	Full

Figure 4.7 – Worklist View Permissions

- The ability to load views from multiple user groups on the same worklist.
- The ability to save views to a specific group if the user happens to belong to more than one user group.

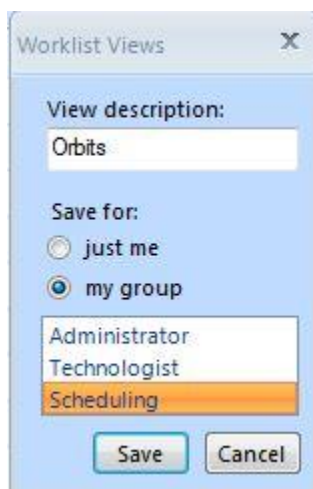


Figure 4.9 – Popup to Save Worklist Views

Worklist Calculated Columns

There is a requirement to support columns to be calculated by the client workstation at runtime. For Build 1.06, a column which calculates patient Due Time has been added to the Scheduled/Arrived worklist. The calculation displays the difference in hours between the current time and the scheduled time. Another calculated column called Calculated Time Severity has been added which will classify the Due Time based on a set range.

: Refresh << >> CR1 CR2 By Last Name By Time Severity (new)						
Calculated Time Severity	Due Time (example)	first_name	last_name	patient_id	scheduled_start_date	procedures
No filter:	Contains:	Contains:	Contains:	Contains:	Equal:	Contains:
Severe	OVERDUE by 10 HOURS 39 MINUTES	Andrea	Young	833	12/2/2010 12:41:02 AM	70030*XR ORBITS FOR FOREIGN BODY
Severe	OVERDUE by 2 HOURS 43 MINUTES	Cassandra54	Luna	937	12/2/2010 8:36:44 AM	70030*XR ORBITS FOR FOREIGN BODY
Severe	OVERDUE by 9 HOURS 47 MINUTES	Alexis48	Cole	602	12/2/2010 1:32:40 AM	70030*XR ORBITS FOR FOREIGN BODY
Severe	OVERDUE by 2 HOURS 14 MINUTES	Eric70	Maxwell	1056	12/2/2010 9:05:51 AM	70030*XR ORBITS FOR FOREIGN BODY
Severe	OVERDUE by 6 HOURS 10 MINUTES	Emma	Wu	268	12/2/2010 5:09:49 AM	70030*XR ORBITS FOR FOREIGN BODY
Major	OVERDUE by 1 HOURS 22 MINUTES	Marsha	Valencia	594	12/2/2010 9:57:40 AM	70030*XR ORBITS FOR FOREIGN BODY
Minor	OVERDUE by 19 MINUTES	Lashonda7	Sellers	843	12/2/2010 11:00:56 AM	70030*XR ORBITS FOR FOREIGN BODY
None	Due in 9 hours 26 minutes	Steven18	Medina	785	12/2/2010 8:46:47 PM	70030*XR ORBITS FOR FOREIGN BODY
None	Due in 3 hours 40 minutes	Jeanine681	Kramer	776	12/2/2010 3:00:29 PM	70030*XR ORBITS FOR FOREIGN BODY

Figure 4.10 – Worklist showing Calculated Column for Due Time and Severity

5. Known Limitations

Bugs, Suggested Features, and Support Issues are now tracked in a web based system called Redmine. The following is a snapshot of the issues found in Build 1.06 as of the end of Sprint 7. Note that the majority if these issues will be resolved in Build 1.07.

#	Status	Subject	Category	Found	% Done	Resolved
38	Closed	Lookup table editor - clicking close and they clicking save causes an error on UserDetails	Admin Tools	1.06	100	1.06
40	Resolved	updating lookup table - delete row, re-add row can cause a duplicate constraint error	Web Services/DB	1.06	100	1.07
41	Closed	patient_class_code error on new order save	Web Services/DB	1.06	100	1.06
42	Resolved	Error accessing PatientClass lookup	Web Services/DB	1.06	100	1.07
43	Resolved	Stat checkboxes are required on core order details screen	Thick Client GUI	1.06	100	1.07
44	Resolved	Issue with combo-boxes and required fields	Thick Client GUI	1.06	100	1.07
46	Resolved	Should be a reference warning when trying to modify a lookup code that is referenced	Admin Tools	1.06	100	1.07
47	New	Concurrency violations when using more than one instance on the Lookup Table editor	Admin Tools	1.06	0	
48	Resolved	Primary or related keys not found when adding a new patient	Web Services/DB	1.06	100	1.07
49	Resolved	Improvements for "breaking lock" workflow	Thick Client GUI	1.06	100	1.07
50	Resolved	Exception creating new user - Column 'user_key' is read only	Admin Tools	1.06	100	1.06
51	New	Takes 2 clicks to Edit, Add, or Remove row from Address grid	Admin Tools	1.06	0	
52	Resolved	Users not marked as Active can still login to the application	Admin Tools	1.06	100	1.07
53	Resolved	Exception when reapplying user to user group	Admin Tools	1.06	100	1.07
54	Resolved	Exception when trying to access AvailabilityTemplate screen	Admin Tools	1.06	100	1.07
55	New	Overwriting a Group Worklist View saves it as a Person Worklist View	Thick Client GUI	1.06	0	
56	New	When Renaming a WorklistView, popup should default to current values	Thick Client GUI	1.06	0	
57	New	Edit Patient shortcut keys not functioning	Thick Client GUI	1.06	0	
58	Resolved	Column sizing issue with child tables in Lookup Table Editor	Admin Tools	1.06	100	1.07
59	Resolved	Installer - Issue with access to Build directory	Thick Client GUI	1.06	100	1.07
60	Resolved	Installer - No indication of what System user is logging into if RISDeployment directory is not available	Thick Client GUI	1.06	100	1.07
61	Resolved	Delete should be disabled on Custom Area Designer when no controls are present	Admin Tools	1.06	100	1.07
62	New	No visual indicator of what worklist view is selected	Thick Client GUI	1.06	0	
63	New	Hard to filter lookup table columns that reference related lookup tables	Admin Tools	1.06	0	