

User Pre-Release Notes

for RADNET rRIS

Build 1.09

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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 9. This pre-release version of rRIS is referred to as Build 1.09.

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

Filter Sites by Practice when Creating Orders

When placing an order in rRIS, the user has the ability to assign the order to a practice. The order placer can go one organization level further and place the order for a site within the selected practice. Once the practice is selected, the list of available sites is then filtered accordingly. When the order is scheduled, the modality search will default to available rooms at the site specified on the order.

The screenshot displays the 'New Order' form in the rRIS application. The form is titled 'New Order (Crosby Sidney) *'. It features a 'Patient' tab and an 'Order' tab. The 'Order Details' section includes fields for 'Practice' (Advanced Radiology), 'Site' (Lutherville), 'Requested By' (MacDougall, Spencer), and 'Delivery Location' (Home: 902-555-4562). A dropdown menu is open for the 'Site' field, showing a list of available sites: GBMC Pavilion, GBMC Pavilion North, Lutherville (highlighted), ODEA, St Joseph Breast Center, St Joseph Medical Center, St Joseph Mobile MRI, St Joseph PET-CT, and Towson. The 'Procedure' field is empty, and the 'Order Notes' field is also empty. A 'Laterality' dropdown is visible on the right side of the form.

Figure 4.1 – Filter Site Dropdown by Selected Practice

Procedure Selector Enforces Body Part and Laterality

When placing or scheduling an order, the procedure selector will now enforce both Body Part and Laterality if it is specified as required at the Procedure Code level. If these values are not required for the selected procedure, then the dropdowns will be disabled. The example below illustrates an order for a CT Ankle Arthrogram where Laterality is required for the procedure.

The screenshot displays the 'New Order' window for 'Crosby Sidney'. The 'Order' tab is active, showing 'Order Details'. The 'Practice' is 'Advanced Radiology' and the 'Site' is 'Lutherville'. The 'Requested By' is 'MacDougall, Spencer' and the 'Delivery Location' is 'Home: 902-555-4562'. The 'Procedure' is 'CT Ankle Arthrogram x'. Below the procedure name, there are 'Body Part' and 'Laterality' dropdown menus. The 'Laterality' dropdown is open, showing options: 'Bilateral', 'Left', and 'Right'. The 'Order Notes' section contains the text 'Patient prefers late afternoon'.

Figure 4.2 – Ordered Procedure with Laterality Required

Region/Practice/Site Picker

In Build 1.08, the Organization administration screen was introduced. Here the organizational structure of the site is configured to include regions, practices, and sites.

The screenshot displays the 'Region/Practice/Site Picker' interface. At the top, there is a 'Region' dropdown menu set to 'Maryland', with 'Edit', 'Add', and 'Remove' buttons. Below this is a 'Practices' section with a table listing practices. The 'Advanced Radiology(ADV)' practice is highlighted in yellow and includes contact information: 'Phone: 904-987-8776' and 'Fax: 987-345-2345'. Below the practices is a 'Sites' section with a table listing sites. The 'Lutherville(LU)' site is highlighted in yellow and includes the contact information 'Phone: 345-876-1234'. To the right of the 'Lutherville(LU)' site is a column labeled 'Site level notes'.

Region: Maryland	
Practices	
Practice	
(inactive) Test Practice(LUTH)	
Advanced Radiology(ADV) Phone: 904-987-8776 Fax: 987-345-2345	
Sites	
Site	
GBMC Pavilion North(PN)	
GBMC Pavilion(PV)	
Lutherville(LU) Phone: 345-876-1234	Site level notes
ODEA(OA)	
St Joseph Breast Center(SB)	
St Joseph Medical Center(ST)	
St Joseph Mobile MRI(SM)	
St Joseph PET-CT(SP)	
Towson(TO)	

Figure 4.3 – Sample Site Configuration

When scheduling an order, the system utilizes the defined organizational structure in combination with the Schedule Group of the user to determine a possible room/scanner solution.

The screenshot displays the 'Scheduling Site Picker' interface. It features three dropdown menus: 'Region' set to 'Maryland', 'Practice' set to 'Advanced Radiology', and 'Site' set to 'Lutherville'.

Region:	Practice:	Site:
Maryland	Advanced Radiology	Lutherville

Figure 4.4 – Scheduling Site Picker

In the above example, there are multiple sites that belong to the Advanced Radiology practice but the user that is scheduling the procedure belongs to the Lutherville Schedule Group. Therefore, the user is only permitted to schedule procedures in rooms that belong to the Lutherville site. If the user is required to also schedule outside of Lutherville, then the Schedule Group can be adjusted to include other sites as well.

Scheduling Search

The screenshot displays the 'Schedule' tab of the rRIS interface. Search criteria are set for Region: Maryland, Practice: Advanced Radiology, Site: Lutherville, Start Date: 02-01-2011, and End Date: 02-28-2011. The procedure 'US Chest x' is selected with a duration of 30 minutes in room US1LU, scheduled for 02-10-2011 at 7:00 AM. A calendar shows Tuesday and Friday selected. The 'Summary' tab shows a table of available times for US1LU and US2LU on Tuesday, 1/02/2011.

US1LU		US2LU	
7:00 AM	30	7:00 AM	40
7:30 AM	30	7:40 AM	40
8:00 AM	30	8:20 AM	40
8:30 AM	30	9:00 AM	40
9:00 AM	30	9:40 AM	40
9:30 AM	30	10:20 AM	40
10:00 AM	30	11:00 AM	40
10:30 AM	30	11:40 AM	40
11:00 AM	30	12:20 PM	40

Figure 4.5 – Scheduling Search

In Build 1.09, Scheduling users now have the ability to search for scheduling solutions based on a specified site, procedure code, start date, end date, day of week, start time, and end time. Or the user can simply specify ALL to receive scheduling solutions from all sites in his or her Schedule Group.

The above scenario is offering a solution for a patient requiring a US Chest procedure at the Lutherville site. The patient would like this procedure anytime in the month of February but is only available on Tuesday and Friday.

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The system shows that two rooms (US1LU and US2LU) are capable of performing this procedure at Lutherville. It also shows that 7:00AM on February 1st is available in both rooms. However, the US Chest takes 30 minutes in US1LU and 40 minutes in US2LU.

Example of configuration involved in the above scenario:

1. Modalities US1LU and US2LU created and assigned to Lutherville site.

modality code	description	ae title	digital flag	active flag	site code
Contains: US	Contains:	Contains:	Contains:	Contains:	Contains: Lutherville
US1LU	LU US1		Y	Y	Lutherville
US2LU	LU US2		Y	Y	Lutherville
Click here to add a new row					

2. Availability Template (LU US) created stating that the rooms are available weekdays from 7:00AM to 3:30PM and Saturday from 8:00AM to 11:30AM.

Template: LU US	Add	Remove
Date Ranges:		
Start		End
Default Template		
Add Edit Remove		
Time Ranges:		
Monday	Tuesday	Wednesday
start end	start end	start end
7:00 AM 3:30 PM	7:00 AM 3:30 PM	7:00 AM 3:30 PM
Thursday	Friday	Saturday
start end	start end	start end
7:00 AM 3:30 PM	7:00 AM 3:30 PM	8:00 AM 11:30 AM

3. Schedule Group for Lutherville is created outlining that rooms US1LU and US2LU are both capable of performing an US Chest utilizing the LU US template.

Schedule Group: Lutherville	Add	Remove
procedure code	modality code	template key
Contains: US Chest	Contains:	Equal:
US Chest	LU US1	LU US
US Chest	LU US2	LU US
Click here to add a new row		

4. A modality duration override of 40 minutes is applied to US2LU for the US Chest procedure. The default duration for the procedure is 30 minutes.

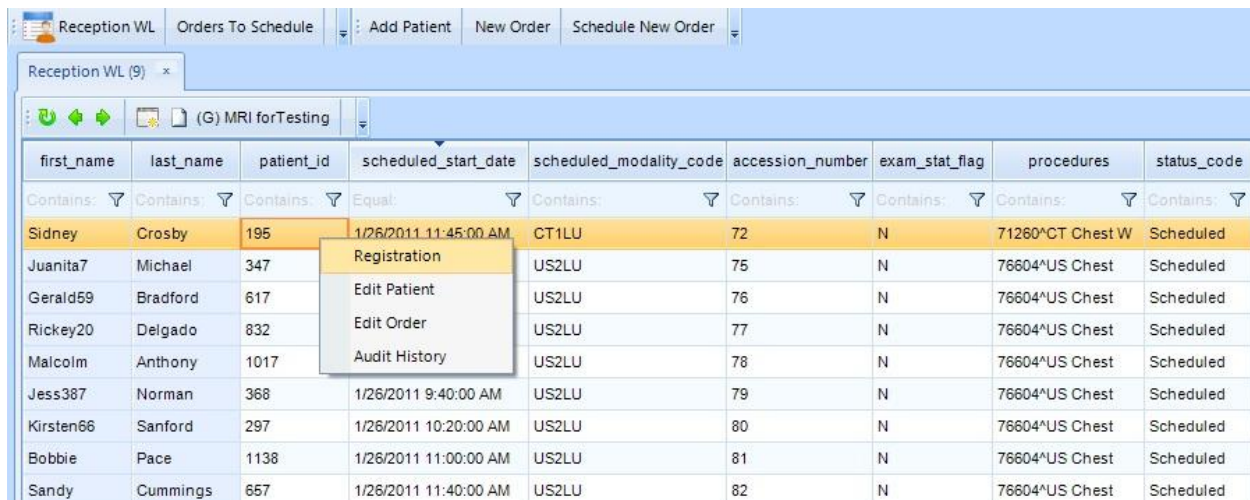
US2LU modality duration override:				
	procedure code	active flag	description	duration
➔	US Chest	Y	Slow scanner	40
*	Click here to add a new row			

5. The Lutherville Schedule Group is applied to the scheduling user so he or she is permitted to schedule for the site.

General	Resource	Account	Preferences	System
Account Information				
	<input checked="" type="checkbox"/> Active Account			
User Name:	<input type="text" value="schedtest"/>			
Password:	<input type="password"/>			
Schedule Group:	<input type="text" value="Lutherville"/>			
User Groups:	<input type="text" value="Scheduling x"/>			

Registration Workflow

In Build 1.09, reception users now have the ability to register a patient. The Reception is a date driven worklist that shows a listing of studies that are scheduled for the selected date. From here, the reception user can launch the registration screen and perform basic level workflow.

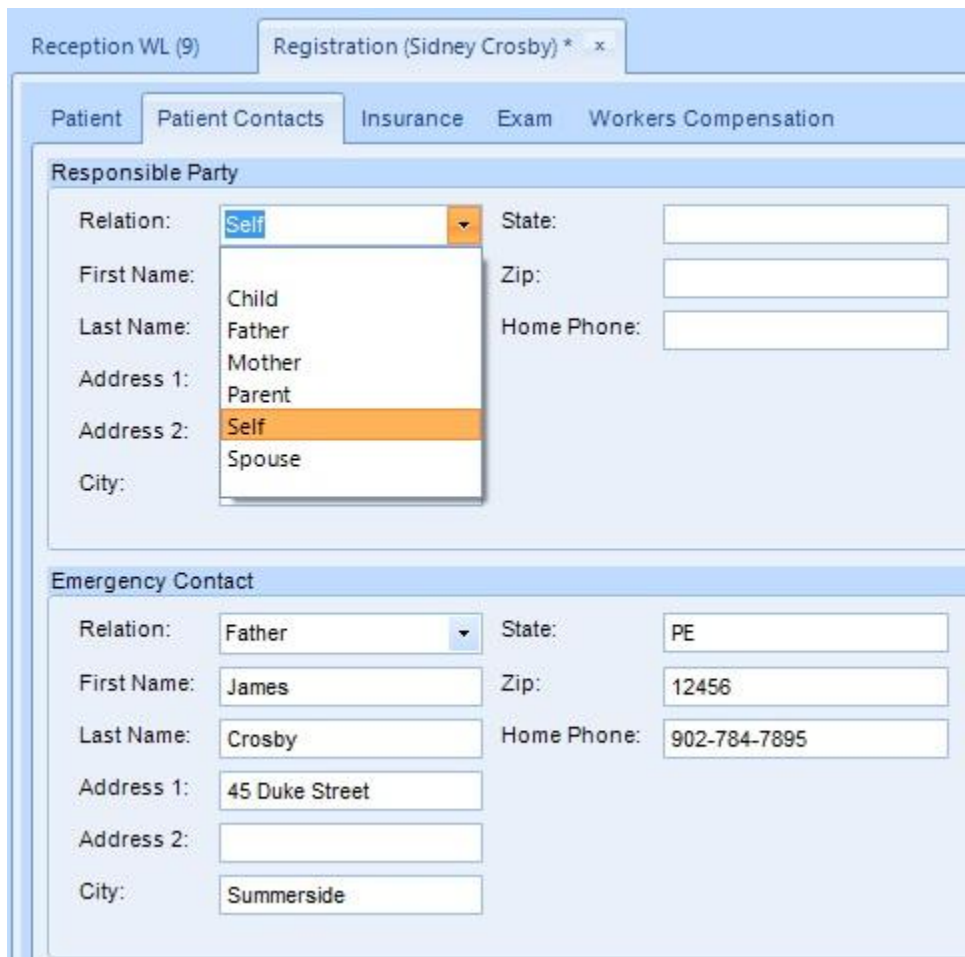


The screenshot shows the 'Reception WL' window with a toolbar containing 'Add Patient', 'New Order', and 'Schedule New Order'. Below the toolbar is a table of scheduled studies. A context menu is open over the first row, showing options: 'Registration', 'Edit Patient', 'Edit Order', and 'Audit History'.

first_name	last_name	patient_id	scheduled_start_date	scheduled_modality_code	accession_number	exam_stat_flag	procedures	status_code
Sidney	Crosby	195	1/26/2011 11:45:00 AM	CT1LU	72	N	71260^CT Chest W	Scheduled
Juanita7	Michael	347		US2LU	75	N	76604^US Chest	Scheduled
Gerald59	Bradford	617		US2LU	76	N	76604^US Chest	Scheduled
Rickey20	Delgado	832		US2LU	77	N	76604^US Chest	Scheduled
Malcolm	Anthony	1017		US2LU	78	N	76604^US Chest	Scheduled
Jess387	Norman	368	1/26/2011 9:40:00 AM	US2LU	79	N	76604^US Chest	Scheduled
Kirsten66	Sanford	297	1/26/2011 10:20:00 AM	US2LU	80	N	76604^US Chest	Scheduled
Bobbie	Pace	1138	1/26/2011 11:00:00 AM	US2LU	81	N	76604^US Chest	Scheduled
Sandy	Cummings	657	1/26/2011 11:40:00 AM	US2LU	82	N	76604^US Chest	Scheduled

Figure 4.6 – Reception Worklist showing Context Menu

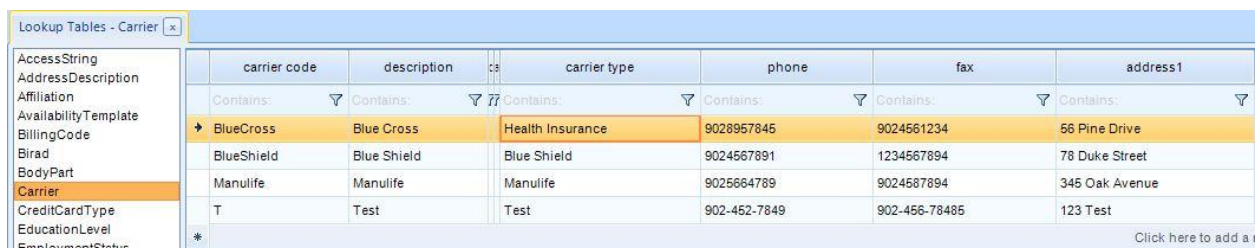
At this point, the registration screen is made up of Patient, Patient Contacts, Insurance, Exam, and Workers Compensation tabs. The Patient tab consists of patient level data and is common throughout other areas of the application. The Patient Contacts tab will be used to store responsible party and emergency contact information at the visit level. Most registration data elements are saved at the visit level as they can vary from one visit to the next.



The screenshot shows the 'Registration (Sidney Crosby) * x' window. The 'Patient' tab is selected, and the 'Patient Contacts' sub-tab is active. The 'Responsible Party' section has a dropdown menu open for 'Relation', showing options: Child, Father, Mother, Parent, Self (highlighted), and Spouse. The 'Emergency Contact' section is also visible, with fields for Relation (Father), State (PE), First Name (James), Last Name (Crosby), Address 1 (45 Duke Street), City (Summerside), Zip (12456), and Home Phone (902-784-7895).

Figure 4.7 – Registration Screen showing Patient Contacts

On the Insurance tab, the reception user can enter insurance policy information and payments related to the selected visit. Insurance carriers are maintained in the Carrier lookup table.



The screenshot shows the 'Lookup Tables - Carrier' window. A table lists various insurance carriers with columns for carrier code, description, carrier type, phone, fax, and address1. The 'Carrier' tab is selected in the left sidebar.

carrier code	description	carrier type	phone	fax	address1
BlueCross	Blue Cross	Health Insurance	9028957845	9024561234	56 Pine Drive
BlueShield	Blue Shield	Blue Shield	9024567891	1234567894	78 Duke Street
Manulife	Manulife	Manulife	9025664789	9024567894	345 Oak Avenue
T	Test	Test	902-452-7849	902-456-78485	123 Test

Figure 4.8 – Carrier Lookup Table

When adding one or more insurance policies to the selected visit, it is important to note that the reception user can easily access a patient's insurance data from previous visits and reuse it if the policies have not changed. Policies can also be marked as expired if they are no longer relevant.

The screenshot shows a window titled "PatientInsurance" with a table of insurance policies. The table has columns: Use, carrier, policy number, group number, group name, location id, display order, description, phone, fax, city, state, and Expired. There are two rows of data. The first row is highlighted in yellow and shows "Blue Cross" as the carrier, policy number 12345, group number 7854, group name "Test Group", location id 897, display order 1, description "Blue Cross", phone 9028957845, fax 9024561234, city "Charlottetown", state "PE", and an unchecked "Expired" checkbox. The second row shows "Manulife" as the carrier, policy number 7845, group number 12441, group name "Red Co", location id 7845, display order 2, description "Manulife", phone 9025664789, fax 9024587894, city "Moncton", state "NB", and an unchecked "Expired" checkbox. Below the table is a link "Click here to add a new row" and a checkbox "Hide Inactive Policies". At the bottom right are "Save" and "Close" buttons.

Use	carrier	policy number	group number	group name	location id	display order	description	phone	fax	city	state	Expired
<input checked="" type="checkbox"/>	Blue Cross	12345	7854	Test Group	897	1	Blue Cross	9028957845	9024561234	Charlottetown	PE	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Manulife	7845	12441	Red Co	7845	2	Manulife	9025664789	9024587894	Moncton	NB	<input type="checkbox"/>

Click here to add a new row

☒ Hide Inactive Policies

Save Close

Figure 4.9 – Popup to Use Insurance Patient's Insurance from Previous Visit

From the registration screen, the user can add one or more payments that the patient has made on the selected visit. By selecting the Add Payment or Edit Payment buttons, the Front Desk Payment popup form will allow the user to add payments via Cash, Credit Card, or Check.

The screenshot shows the "Registration Screen" with tabs for Patient, Patient Contacts, Insurance, Exam, and Workers Compensation. The "Insurance" tab is selected, showing a table of "Insurance Policies". The table has columns: policy number, group number, group name, location id, description, phone, and copay. There are two rows of data. The first row is highlighted in yellow and shows policy number 12345, group number 7854, group name "Test Group", location id 897, description "Blue Cross", phone 9028957845, and copay. The second row shows policy number 7845, group number 12441, group name "Red Co", location id 7845, description "Manulife", phone 9025664789, and copay. To the right of the table are "Move Up" and "Move Down" buttons. Below the table is an "Edit Insurance" button. Below that is a "Payments" section with a table. The table has columns: Date, Posted By, Amount, and Payment Method. There is one row of data highlighted in yellow showing Date "1/1/1800 12:00:00...", Posted By "regtest", Amount "500.00", and Payment Method "CreditCard". Below the table are "Edit Payment" and "Add Payment" buttons. A "Front Desk Payment" popup window is open in the foreground. It has a "Payment" section with fields: Amount to Collect (empty), Amount (500.00), Method (CreditCard), Check Number (empty), Credit Card Type (Visa), Credit Card Number (451-7845-8452-7415), Name on Credit Card (Mary Crosby), and Credit Card Expiry (01/13). Below the "Payment" section is a "Notes" section with a text area. At the bottom are "Save" and "Cancel" buttons.

policy number	group number	group name	location id	description	phone	copay
12345	7854	Test Group	897	Blue Cross	9028957845	
7845	12441	Red Co	7845	Manulife	9025664789	

Move Up Move Down

Edit Insurance

Date	Posted By	Amount	Payment Method
1/1/1800 12:00:00...	regtest	500.00	CreditCard

Edit Payment Add Payment

Front Desk Payment

Payment

Amount to Collect:

Amount:

Method:

Check Number:

Credit Card Type:

Credit Card Number:

Name on Credit Card:

Credit Card Expiry:

Notes

Save Cancel

Figure 4.10 – Registration Screen showing Insurance and Payment Entries

The Workers Compensation tab on the registration screen allows the user to enter injury related data required for a workers compensation claim.

The screenshot shows the RADNET rRIS Registration Screen. At the top, there are tabs for 'Reception WL (9)' and 'Registration (Sidney Crosby) *'. Below these are sub-tabs: 'Patient', 'Patient Contacts', 'Insurance', 'Exam', and 'Workers Compensation'. The 'Workers Compensation' tab is active. It displays a table of injuries with columns 'claim #' and 'date of injury'. One entry is highlighted: claim # 74512, date of injury 1/12/2011 12:00:00 AM. Below the table are buttons for 'Edit Injury Details' and 'Add Injury Details'. An 'Injury' dialog box is open, showing fields for injury information. The fields are: Condition Related To (Employment), Injury Code (<InjuryCode>), Claim # (74512), Injury Date (01-12-2011), Location (Construction Site), City (Summerside), State (PE), Zip Code (12345), Country (Canada), and Description (Test). There are 'Save' and 'Cancel' buttons at the bottom right of the dialog box.

claim #	date of injury
74512	1/12/2011 12:00:00 AM

Injury

Injury Information

Condition Related To: Employment

Injury Code: <InjuryCode>

Claim #: 74512

Injury Date: 01-12-2011

Location: Construction Site

City: Summerside

State: PE

Zip Code: 12345

Country: Canada

Description: Test

Save

Cancel

Figure 4.11 – Registration Screen showing Workers Compensation entry

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 1.09 as of the end of Sprint 10. Note that the majority of these issues will be resolved in Build 1.10.

#	Status	Subject	Category	Found	%Done	Resolved
185	New	Registration - Missing field for Injury Code	Thick Client GUI	1.09	0	
184	New	Registration - Multiple payments should be in a calculated field	Thick Client GUI	1.09	0	
183	New	Organization - Region context menu	Admin Tools	1.09	0	
182	Resolved	Scheduling - Day label is showing up twice on the Advanced layout	Thick Client GUI	1.09	100	1.10
181	Resolved	Scheduling - Room text box on the study grid	Thick Client GUI	1.09	100	1.10
180	New	Registration - Exception when removing an Insurance policy	Thick Client GUI	1.09	0	
179	New	Registration - Time is showing on the Payments grid	Thick Client GUI	1.09	0	
178	New	Login - Issue when trying to launch the app when it is already running	Thick Client GUI	1.09	0	
177	New	Worklist - No framework present to specify a default worklist	Thick Client GUI	1.09	0	
176	New	Worklist - Group does not default properly when renaming a group worklist view	Thick Client GUI	1.09	0	
175	New	Registration - Exception with sequence buttons on insurance grid	Thick Client GUI	1.09	0	
174	Resolved	Body Part and Laterality are not being enforced on Edit Order	Thick Client GUI	1.09	100	1.10
173	Resolved	Registration - Exception when registering a patient with no scheduled procedure	Thick Client GUI	1.09	100	1.10
172	New	Scheduling - Procedure code needs to be a required field	Thick Client GUI	1.09	0	
171	Resolved	Worklist - Orders are falling off the "Orders To Schedule" worklist without being scheduled	Thick Client GUI	1.09	0	
170	New	Worklist - Sorting issues on keys and dates	Thick Client GUI	1.09	0	
169	New	Permissions - Missing lookup table permissions	Admin Tools	1.09	0	
168	New	Permissions - Issue with lookup table permissions	Admin Tools	1.09	0	
167	New	Permissions - Missing permission on Administration menu item	Thick Client GUI	1.09	0	
166	Resolved	Scheduling - Issue applying availability templates to search results	Thick Client GUI	1.09	100	1.10
165	Resolved	Scheduling - Exception when using mouse scroll wheel to find time slot	Thick Client GUI	1.09	100	1.10
164	New	Scheduling - Exception when searching rooms for a study with multiple procedures	Thick Client GUI	1.09	0	
163	New	Scheduling - Issue when scheduling more than one study per order	Thick Client GUI	1.09	0	
162	Resolved	Worklist - Issue with permissions on worklist buttons	Thick Client GUI	1.09	100	1.10
161	Resolved	Scheduling - Exception when scheduling using search icon	Thick Client GUI	1.09	100	1.10

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160	New	ScheduleGroup - Exception when adding multiple procedures	Admin Tools	1.09	0	
159	Resolved	ScheduleGroup - Exception when adding new schedule group	Admin Tools	1.09	100	1.10
158	Resolved	Registration - Missing permission is causing exception	Thick Client GUI	1.09	100	1.10
156	New	Worklist Views - Multi-select should be disabled	Thick Client GUI	1.09	0	
		UserGroupPermission - Difficult assigning multiple access strings to a user group				
155	New		Admin Tools	1.09	0	
154	Resolved	UserGroupPermission - missing access level dropdown	Admin Tools	1.09	100	1.10
153	New	ComboBoxes - Allow null selection on required fields	Thick Client GUI	1.09	0	
152	Resolved	Personnel - No error handling on duplicate User Names	Admin Tools	1.09	100	1.10
151	Resolved	Personnel - Exception when password is not specified	Admin Tools	1.09	100	1.10
		Scheduling - Issue loading patient context on Schedule New Order				
150	New		Thick Client GUI	1.09	0	
149	New	Registration - Exception when no relation is specified	Thick Client GUI	1.09	0	
148	New	Registration - MRN is editable	Thick Client GUI	1.09	0	
147	New	ScheduleGroup - Conflicting right-click events	Admin Tools	1.09	0	
		ScheduleGroup - Exception after marking a schedule group as inactive				
146	Resolved		Admin Tools	1.09	100	1.10