



## Scheduling Template Configuration

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## 1. Overview

Templates are a powerful, easy way to control when a site is open, when a room is open, and what procedures can be scheduled in those rooms. They can be used to override how long a procedure takes, and create other exceptions to scheduling rules. They can also be used to hold and therefore hide time slots from the scheduling search engine and automatically release these holds at a certain time. This document explains how to create and manage templates.

## 2. Templates

There are three types of templates:

- Business Hours—which can be associated to a site.
- Device Availability—which is associated to a modality (such as a room or device).
- Procedure Availability—which is associated to a procedure code via a Scheduling Group.

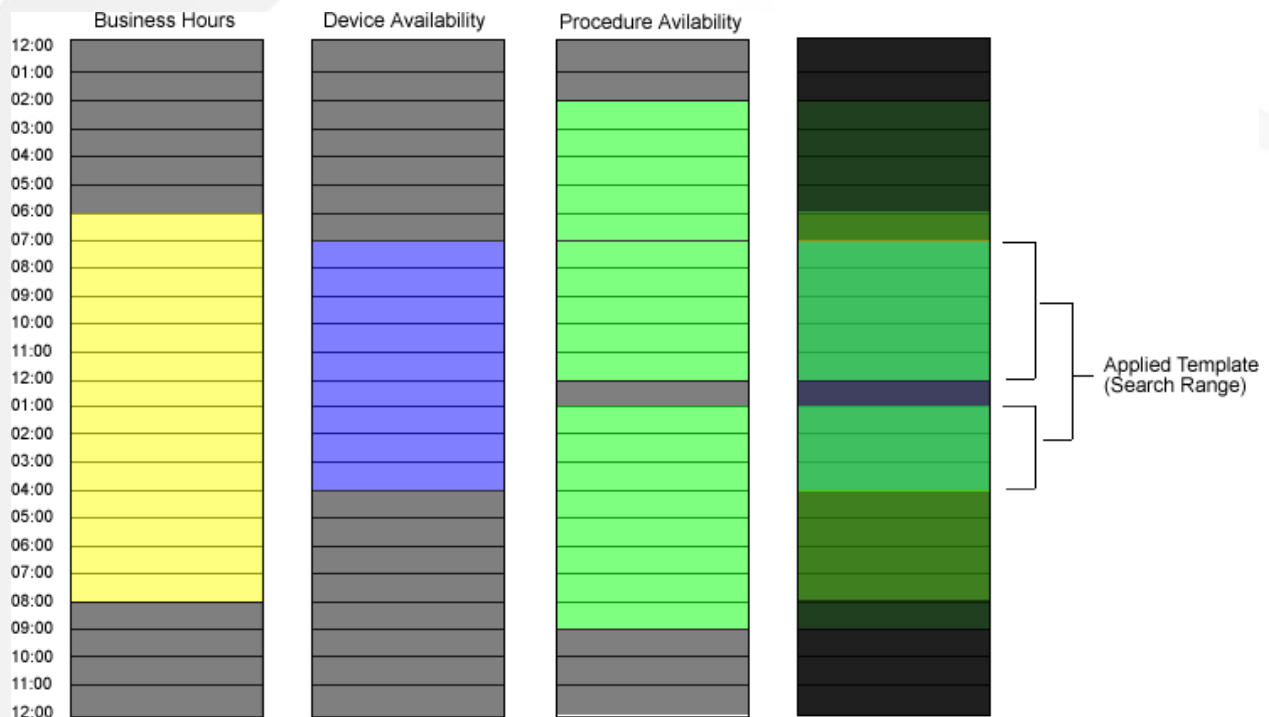
These templates are all similar in that they collect time and date ranges, but there are notable differences. A Business Hours template and a Procedure Availability template can have procedure duration overrides and an Expiring Reservation associated to each time range. A Device Availability template also has the Expiring Reservation associated to each time range, but does not have a duration override.

These templates may seem overwhelming at first, but they allow very granular control over where and when the scheduling search engine will find open slots to perform exams.

## 3. Order of Applying Templates

In order to properly configure and troubleshoot scheduling search results, it is helpful to understand the order of precedence of templates.

When searching for results, the system will first check if there is a template applied to the site (a Business Hours template), and if there is, it will check if that template has the specified time open. If the time slot is available, it will then check to see if the modality/room has a template (Device Availability template) and if so, it checks to ensure the time is also available on that template. Finally it will check the procedure to modality mapping template (Procedure Availability Template), and ensure the time is available on that template.



To simplify configuration, the Procedure Availability template should be configured to dictate *if* the procedure can be performed in that room (if the room were open), and the site or device template should be configured to control when the procedure can be performed. Consider setting up the Procedure Availability template with the hours of 12:00 a.m. to 11:59 p.m. as open for a particular procedure, and use the Device Template to limit the hours to the actual operating hours in which this room is open. This makes it easier to adjust the templates to run extra hours of operation if needed.

#### **4. Preferred order of configuration**

To make configuration as quick and simple as possible, it is recommended that you:

- a. create the templates
- b. create the procedure/practice/sites
- c. apply any desired templates to the sites
- d. create the procedure codes
- e. create the modalities (devices/rooms)
- f. create the schedule groups

You will then be able to:

- a. create the modality procedure duration override
- b. assign any desired templates
- c. create the schedule groups
- d. assign the already configured procedure and devices (modalities) with the desired procedure level templates
- e. Assign the procedures to the rooms with their templates inside of the schedule group.

#### **5. Site Template (Business Hours)**

When you are creating a new site or modifying an existing site, a template can be assigned to the site from the site creation pop-up window.

Lookup Tables - Organization

Region: **Maryland** [Edit] [Add] [Remove]

**Practices**

Practice	Practice Notes	Address	Contact	Contact Notes
<b>Advanced Radiology(ADV)</b> Phone: (443) 436-1100 Fax: (443) 436-4568 Time Zone: (UTC-04:00) Atlantic		7253 Ambassador Road Baltimore, MD 21244	Jim Smith Phone: (443) 436-1100 jim@mail.com	

[Edit] [Add] [Remove]

**Sites**

Site	Notes	Address	Contact	Contact Notes
<b>Eldersburg(EL)</b> Phone: (443) 436-7100 Fax: (443) 436-7132	test123	1430 Progress Way Suite 108 Eldersburg, MD 21784	Bob Smith Phone: (443) 436-7100 Cell: (443) 436-7101 Fax: (443) 436-7132	
<b>Fisher(FH)</b> Phone: (443) 436-1300 Fax: (443) 436-1332		193 Stoner Avenue Suite 200 Westminster, MD 21157	Susan Smith Phone: (443) 436-1300 Cell: (443) 436-1301 Fax: (443) 436-1332	
<b>Lutherville(LU)</b> Phone: (410) 580-2240 Fax: (410) 580-2270		1209 York Road Suite 100 Lutherville, MD	Paul Smith Phone: (410) 580-2240 Cell: (410) 580-2241	

[Edit] [Add] [Remove]

[Save] [Close]

The template dropdown will only show templates that were defined as Business Hour templates. This entry does not need to be set. If a template was previously set, then the value can be removed.

## 6. Modality Template (Device Availability)

From the modality (device/room) configuration screen, there is a column that will allow you to specify a device level template.

Modality code	Description	AE title	Digital	Site code	Modality type code	Weight	Confined space flag	Device Template
CT1EL	CT1EL	CT1EL	N	dummy	CT		N	
CT1FH	CT1FH	CT1FH	N	test1	CT	300	Y	
CT1LU	CT1LU	CT1LU	N	LU (Lutherville)	CT		N	
DE1EL	DE1EL	DE1EL	N	EL (Eldersburg)	BD (Bone Density)		N	
DE1FH	DE1FH	DE1FH	N	FH (Fisher)	BD (Bone Density)		N	
DX1LU	DX1LU	DX1LU	N	LU (Lutherville)	XR (Plain Film/Xray/CR)		N	

This column will only display Device Availability templates. This column will also allow you to remove a template from a device (by not specifying it) By assigning a Device Availability template, you can specify the modality open times.

Also implemented is a Duration Override feature that allows you to specify a procedure duration override at a room (modality/device) level. (Refer to the Modality Duration Override section on page 11.)

### 7. Schedule Group

A schedule group is used to assign schedulers (i.e., RIS users) to a filtered list of procedures and the modalities (rooms/devices) that they can schedule on. Each user can only be assigned to one schedule group. Inside a schedule group there can be any number of mappings from procedures to modalities (rooms/devices), however a single mapping can only occur once per schedule group.

For example, in a schedule group “Advanced Schedulers,” a “CT 3 Phase” can be mapped to “CTEL” device only once, and that mapping must have a template. However, in another schedule group, “Limited Schedulers,” a “CT 3 Phase” can be mapped to “CTEL” but with a different template that has fewer hours. This configuration means more time slots are available for scheduling to users assigned to the “Advanced” schedule group than users assigned to the “Limited” schedule group.

This functionality can be used for referrers that have been given the ability to schedule in RIS.

After the creation of a schedule group, additional schedule groups can be quickly built using the “clone” feature that will take the mappings from a selected schedule group and create a copy of the schedule group that can then be modified as needed.

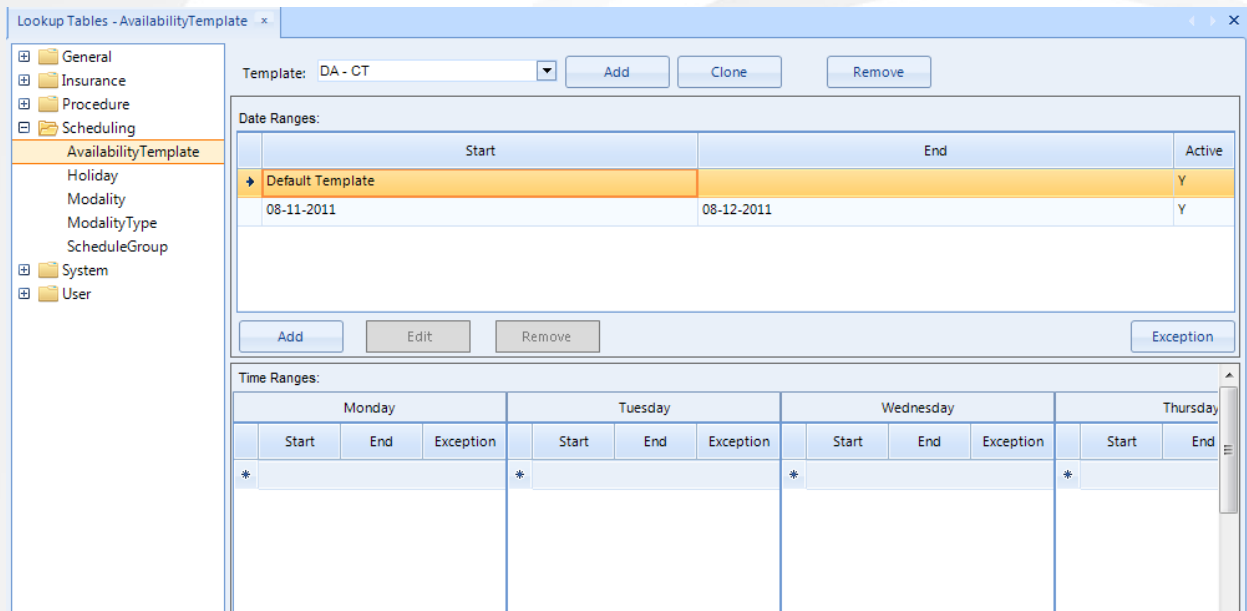


## Procedure Availability

From the schedule group configuration screen, each procedure to modality mapping must have a template assigned to it. The dropdown list of templates will display all template types, including device and business hour templates.

## 8. Templates

All three template types (Business Hours, Device Availability, and Procedure Availability) are configured and maintained from the “Availability Template” configuration screen.

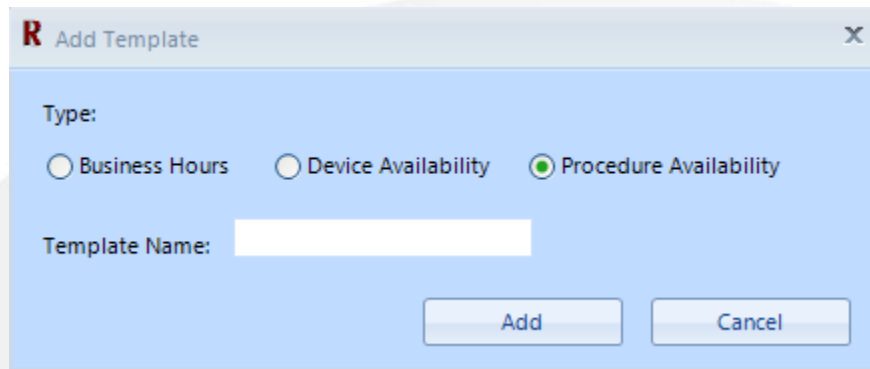


## Cloning Templates

Cloning a template allows you to create a new template from the time ranges of an existing template but also allows you to save the new template as a different type of template. For example, a business Hours template (site template) can be cloned, modified, and saved as a Device Availability template.

## Adding Templates

To add a template, select the Add button. The Add Template pop-up screen allows you to create the different types of templates. By default the procedure availability is selected. Be sure to name your templates clearly in order to simplify configuration.



After a template is created, it appears in the template dropdown list. Business Hours templates are prefixed with “BH,” and Device Availability templates are prefixed with “DA.” They appear in order based on type, and then alphabetically by template name.

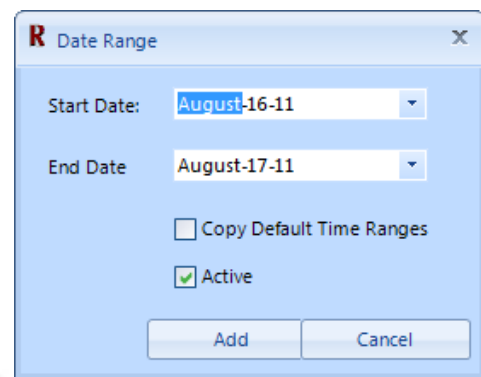
When a template is created, it will always contain a “default” date range. The default date range is a date range from the beginning of time to the end of time. This range cannot be deleted. This range is used as long as there is no overriding date/time range. If you have the default date range selected in the top grid of the Availability Template editor, the days of the week in the lower grid represent a generic day of the week. For example, if you add a time range for Monday, this will apply for all Mondays, forever (unless there is another override).

### **Date Range and Time Range overrides**

A template can contain any number of date/time range overrides. It is basically an override from the “default” time range.

### **Adding/Modifying date range overrides**

To add a date range, select the Add button from the date range area. From the add date range pop-up window, you can enter a date range that cannot conflict with any other date range (other than the default date range on that template). There is also an option on this screen to copy the default time ranges, for faster configuration of the override time ranges.



## Time Ranges

Time Ranges:															
Monday				Tuesday				Wednesday				Thursday			
Start	End	Dur	Exception	Start	End	Dur	Exception	Start	End	Dur	Exception	Start	End	Dur	Exception
* Click here to add a new row				* Click here to add a new row				* Click here to add a new row				* Click here to add a new row			
7:45 AM	12:00 PM	24h		7:45 AM	12:00 PM	24h		7:45 AM	12:00 PM	24h		7:45 AM	12:00 PM	24h	
1:00 PM	4:00 PM	24h		1:00 PM	4:00 PM	24h		1:00 PM	4:00 PM	24h		1:00 PM	4:00 PM	24h	

When you select a date range in the top grid, the lower grid containing the days of the week now represent that date range. For example, if your date range is August 25 to August 25 (you want to make a special rule for that day only), then in the days of the week grid, you would put your time override on Saturday. (August 25, 2018 is a Saturday.) If your date range were August 1, 2018 to August 31, 2018, then adding a time range on Saturday would apply to each Saturday for the month of August, 2018.

**Debugging Tip:** If you created an override for the month of August as described above, but didn't enter times for Monday, Tuesday, Wednesday, etc, then the scheduling system will consider these times *unavailable*. This is why you want to use the "Copy default time ranges" option when you create a date range override.

If you have a Procedure Availability template selected, in the time range grid, there is a Duration override column available that will allow for a procedure to have a different duration for the specified time range. This can be used when there is less staff available for a period of time. When this value is not set, the duration will be based on the normal procedure duration. If there is a duration override for that procedure on the schedule modality (see Modality Duration Override on page 11), the duration column is not available when the template is a Business Hours or Device Availability template.

A Reservation can also be added to the time range; see below.

## 9. Expiring Reservations

A room can be reserved for a particular referring physician. However, if the time slot is not used within a certain period of time prior to the exam, the reservation expires, and the slot is made available to the scheduling search engine. These reservations are then connected to the template as a time range exception.

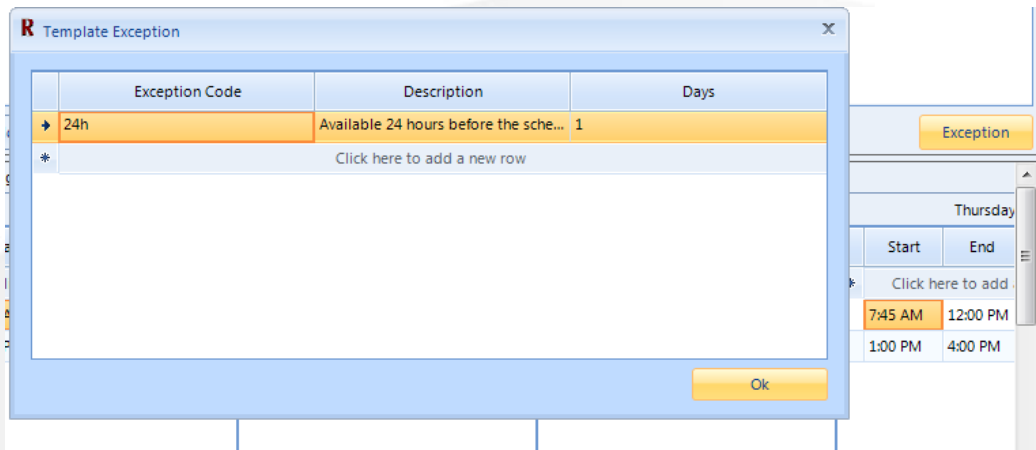
For example, if an exception was created for “one day,” and the one day was applied to each time range in a template, then the search engine would not see that time slot until exactly one day before the current time.

Another example: If the one day reservation was applied to August 18, 2018, the search results would not return that day in the search results until August 17, 2018.

A reservation can also be created with a negative number of days. This allows you to hide a room from the search engine if it has not been booked by a certain date/time. For example, if a reservation of -one day was applied to August 18, 2018, this time *would* be returned in the search results *until* August 17, 2018 at which time it would no longer return as a possible time slot.

### **How to create a reservation**

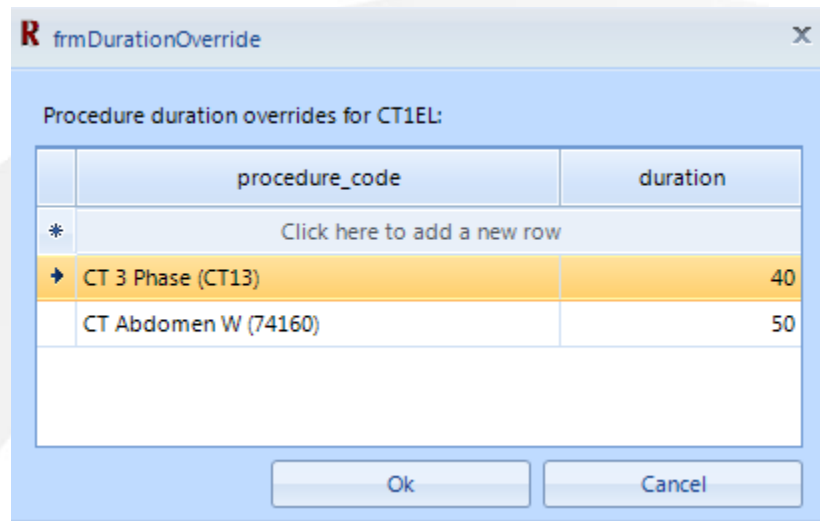
To create a reservation, select the Expiring Reservations item in the scheduling configuration tree. Add a name, description, and the number of days that the reservation blocks the search engine. This reservation can be re-used for as many templates as you need.



## 10. Modality Duration Override

When creating a procedure, you are required to specify the duration of the procedure. This becomes the default duration of the procedure, and will be used as long as it is not overridden. This value can be overridden by creating a template for that procedure, and specifying the new duration for each day and each time block on the template that is mapped to that procedure on the desired modality.

An additional override option has been created from the Modality configuration screen that allows a specific device (modality) to have duration overrides for any number procedures. From the duration override button a new screen displays, that allows for the creation of an override for any procedure performed on that device.



This duration override, similar to the template, will be applied in the order of a) the procedure duration, b) the modality procedure duration override, and c) then the user's schedule group applied template. If a duration override exists for the currently scheduling time range, then the duration will override that value.