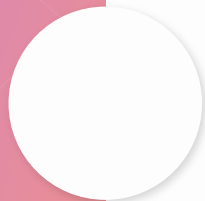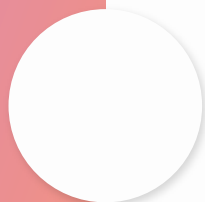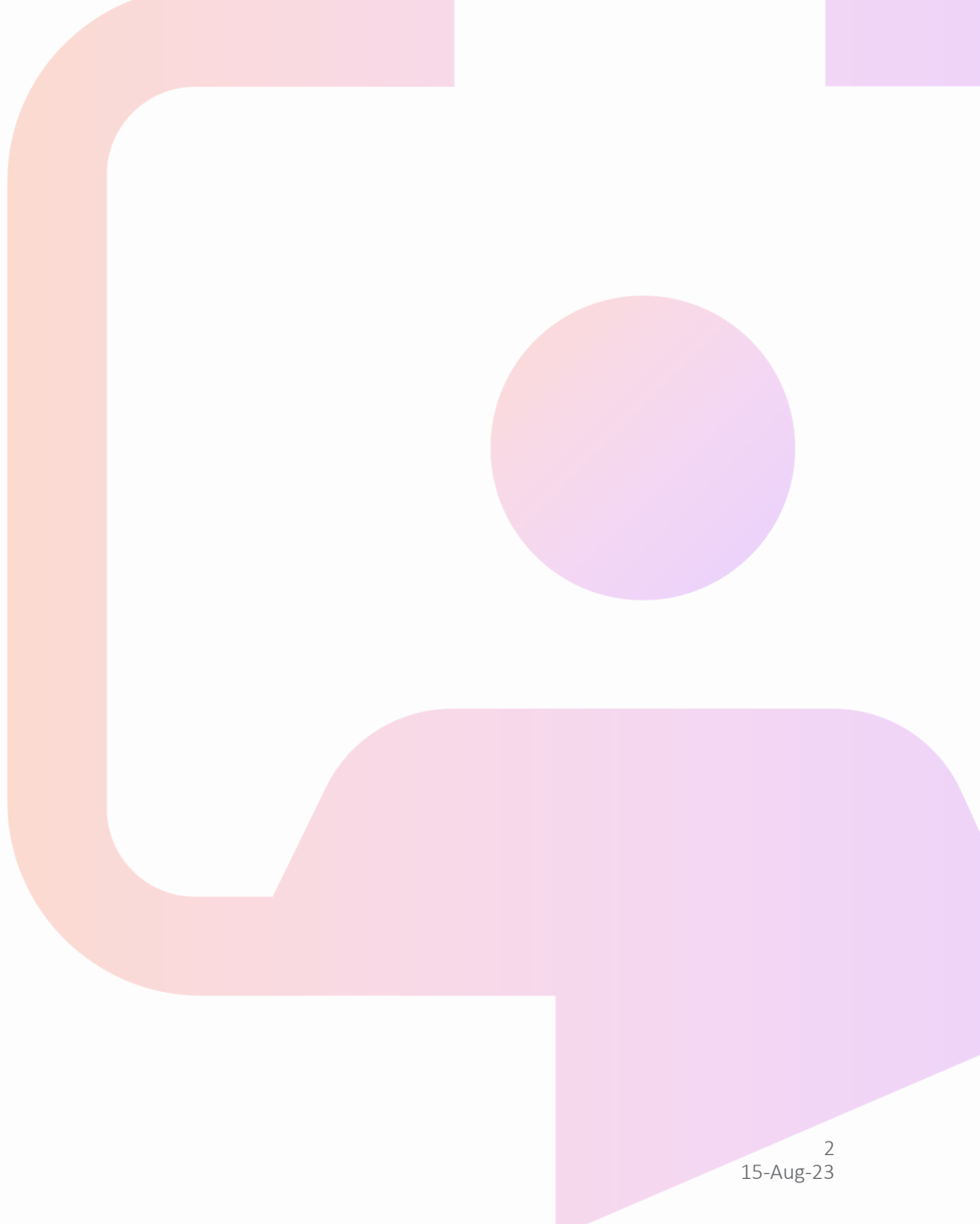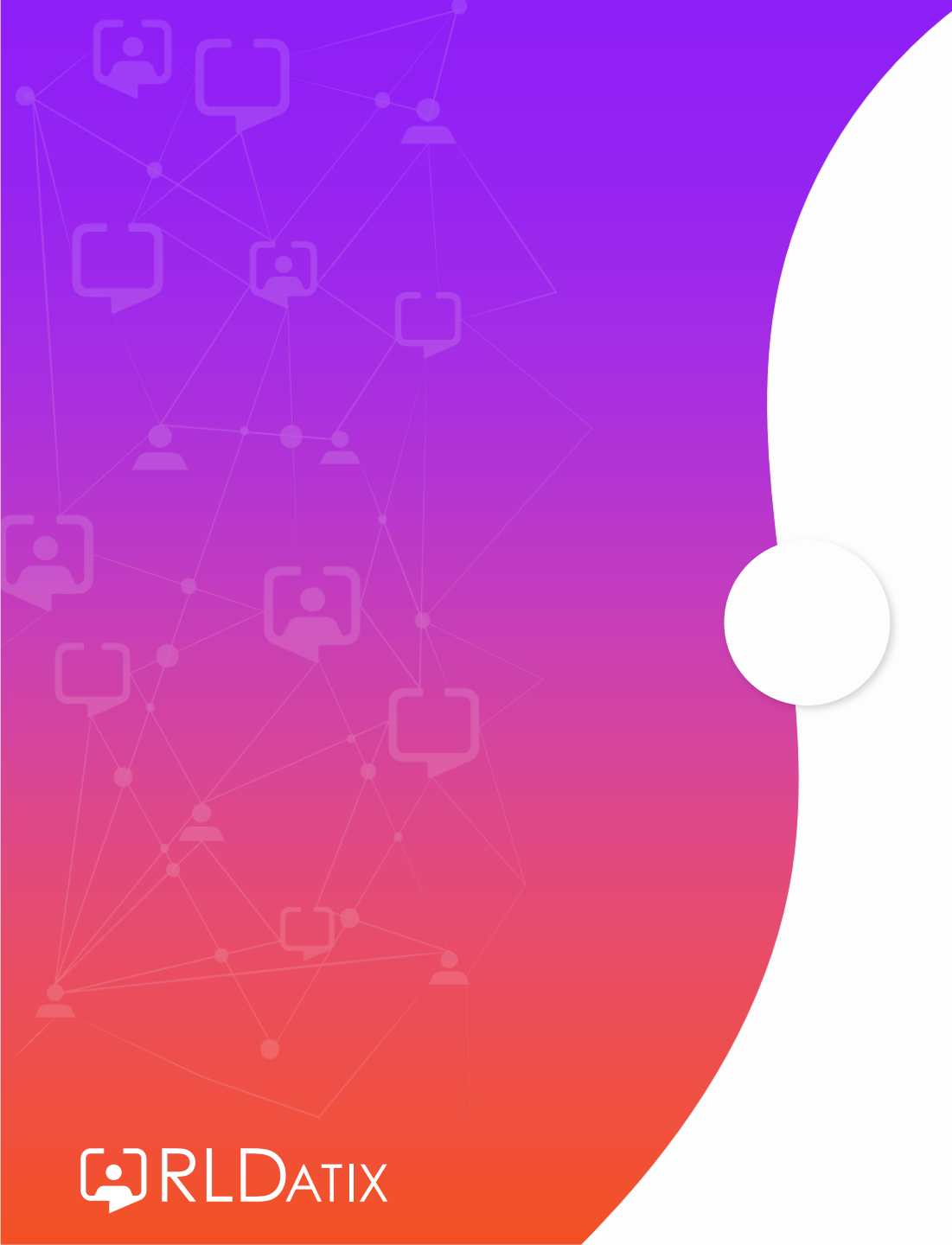# AutoRoster – Roster Set Up Review

Areas to Review – Roster Set Up

Global Patterns – Top Tips

Areas to Review – AutoRoster Settings

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# Areas to Review – Roster Set Up

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# Review – Staff Contracted Hours

Personnel > Person Search > Person Search



## Person Search

| | Surname ↑ | Forenames | Staff Number | Grade | Current Postir | Assignment No | Current Unit | Contracted Time |
|---|---|---|---|---|---|---|---|---|
| | Albon | Alex | 258963 | Band 4 A&C | B4 Admin | 258963 | Cole Ward | 37:30 |
| | Amato | Nelle | 3554D06C614861 | Band 7 RN | B7 WM | 3554D06C614861 | Cole Ward | 37:30 |
| | Bankless | Malorie | 12356889 | Band 5 RN | B5 RN | 12356889 | Cole Ward | 37:30 |
| | Blossomgame | Cordie | 7C09C3C0F14884 | Band 3 HCA | B3 HCA | 7C09C3C0F14884 | Cole Ward | 37:30 |
| | Blossomgame | Hortencia | B82590D8714896 | Band 3 HCA | B3 HCA | B82590D8714896 | Cole Ward | 37:30 |
| | Bradd | Gail | 417FDB4C514892 | Band 5 RN | B5 RN | 417FDB4C514892 | Cole Ward | 37:30 |
| | Brettschneide | Helena | E1192CBC714893 | Band 6 RN | B6 RN | E1192CBC714893 | Cole Ward | 30:00 |
| | Chowanec | Stefania | 6D102608314885 | Band 3 HCA | B3 HCA | 6D102608314885 | Cole Ward | 30:00 |

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# Review – Flexible Working Arrangements

Admin > Rostering Admin > Shifts, Patterns & Rules

| Shifts | > |
|--------|---|
| Duty Rules | > |
| Unavailability Rules | > |
| Global Patterns | > |
| **Personal Patterns** | > |
| **Shared Patterns** | |

**Shared Patterns**                    1 Records

| Name ↑ | Weeks | Assignments |
|--------|-------|-------------|
| B6 Weekend OCPattern | 2 | 0 |

Personnel > Person Search > Person Search > Restrictions

**Change Person Working Restrictions**

Effective From *
06/03/2023

**Hours Of Work**

| | From | To |
|--------|------|------|
| Monday | 00:00 | 23:59 |
| Tuesday | 00:00 | 16:00 |
| Wednesday | 00:00 | 23:59 |
| Thursday | 00:00 | 23:59 |
| Friday | 11:00 | 23:59 |
| Saturday | 00:00 | 23:59 |
| Sunday | 00:00 | 23:59 |

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# Review - Shifts

Admin > Rostering Admin > Shifts, Patterns & Rules > Shifts

| Shifts | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Shifts** | | | | 8 Records | | | | |
| Name ↑ | Shift Type | Work Time | Start Time | End Time | Auto Roste | Priority | Exclude From Summary |
| Admin (A&C) | Day | 07:30 | 08:30 | 16:30 | ✓ | 5 | - |
| Day Off (DO) | Rest | 00:00 | 07:30 | 00:00 | ✓ | 7 | Y |
| Early (E) | Day | 07:30 | 07:00 | 15:00 | ✓ | 1 | - |
| Late (L) | Day | 07:30 | 13:00 | 21:00 | ✓ | 2 | - |
| Night (N) | Night | 11:00 | 19:30 | 07:30 | ✓ | 3 | - |
| On Call (OC) | On Call | 00:00 | 19:00 | 07:00 | ✓ | 6 | - |
| Standby (SB) | Day | 07:30 | 08:00 | 16:00 | ⚙ | 8 | Y |
| Ward Manager (WM) | Day | 07:30 | 09:00 | 17:00 | ✓ | 4 | - |

Left sidebar menu:
- Shifts
- Duty Rules
- Unavailability Rules
- Global Patterns
- Personal Patterns
- Shared Patterns
- Demand Patterns
- Service Plans
- Activity Profiles
- Timeclock Configurations

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# Review – Demand Template

Admin > Rostering Admin > Demand Templates

# Review – Demand Template
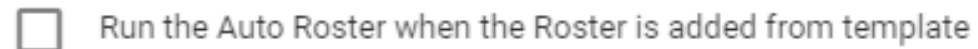
From 11.3.2 there is the functionality to automate adding roster from template, this is based on the roster template type and is configured in Reference Data > Rostering > Roster Types. So, as well as reviewing the actual demand required also ensure the correct roster type has been assigned to the master demand template to utilise this functionality.

☑ Automate Add Roster from Template ⓘ

Add Roster Offset

4        ⊖ ⊕

Add Roster Offset Period *

Weeks        ⌄

Also, from 11.3.2 there is the functionality to automate running AutoRoster once the roster has been automatically added from template. This is also configured in Reference Data > Rostering > Roster Types. The system can be configured to run any of the AutoRoster processing stages, and again this is based on roster type.

☐ Run the Auto Roster when the Roster is added from template

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# Review - Rules

| Rules | 5 Records | | | |
|---|---|---|---|---|
| Name ↑ | Rostering Rule Type | Applicability Type | | Rul |
| ▽ Max 3E in a Week | Max Shifts In Ref Period Rule | Applies To All Except | | |
| ▽ Max 3L in a Week | Max Shifts In Ref Period Rule | Applies To All Except | | |
| ▽ Max 4 Requests per Roster | Max Requests Rule | Applies To All Except | | |
| ▽ Max 6N in a Roster | Max Shifts In Ref Period Rule | Applies To All Except | | |
| ▽ Min. 1 Weekend off per Roster | Weekend Rule | Applies To All Except | | |

Sidebar: Shifts, **Duty Rules**, Unavailability Rules, Global Patterns, Personal Patterns, Shared Patterns, Demand Patterns

Admin > Rostering Admin > Shifts, Patterns & Rules > Duty Rules

Admin > Rostering Admin > Shifts, Patterns & Rules > Unavailability Rules

Sidebar: Shifts, Duty Rules, **Unavailability Rules**, Global Patterns, Personal Patterns, Shared Patterns

| Rules | 4 Records | | | |
|---|---|---|---|---|
| Name ↑ | Rostering Rule Type | Applicab |
| ▽ 56 Days Notice for AL Requests via EOL | EOL Request Notice Period Rule | Applies |
| Max 18% RN on AL | Max Percent Staff On Leave Rule | Only App |
| Max 20% HCA on AL | Max Percent Staff On Leave Rule | Only App |
| ▽ No EOL Requests Over Approved Rosters | EOL Request Over Approved Roster Rule | Applies |

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# Review – Global Patterns

Admin > Rostering Admin > Shifts, Patterns & Rules > Global Patterns

| Shifts | > |
|---|---|
| Duty Rules | > |
| Unavailability Rules | > |
| **Global Patterns** | |
| Personal Patterns | > |
| Shared Patterns | > |
| Demand Patterns | > |
| Service Plans | > |
| Activity Profiles | > |
| Timeclock Configurations | > |

**Global Patterns** — 61 Records

| Name ↑ | Sequence | Applicability Type |
|---|---|---|
| Cole1 | .N .N .N .NoShift .NoShift .NoShift .NoShift | Applies To All Except |
| Cole10 | .L .NoShift .NoShift .E .E .E .L | Applies To All Except |
| Cole11 | .L .L .NoShift .NoShift .E .E .E | Applies To All Except |
| Cole12 | .E .L .L .NoShift .NoShift .E .E | Applies To All Except |
| Cole13 | .E .E .L .L .NoShift .NoShift .E | Applies To All Except |
| Cole14 | .E .E .L .L .L .NoShift .NoShift | Applies To All Except |
| Cole15 | .NoShift .E .E .L .L .L .NoShift | Applies To All Except |
| Cole16 | .NoShift .NoShift .E .E .L .L .L | Applies To All Except |

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# Review – Global Patterns Top Tips

- Avoid patterns that are not a good sequence of shifts
- Do not add patterns that conflict with unit or global rules
- Don't miss patterns that are a good, preferred sequence of shifts
- Don't forget about long day patterns
- Ensure patterns for both full time and part time hours

- Patterns can be longer than a week
- Patterns over the 'normal' contracted hours might fail so be mindful of the shifts/hours being added
- Check for duplicates & remove
- Check usage using the AutoRoster audit log
- Never assume all units will work the same global patterns
- Don't forget you can import global patterns as well

15-Aug-23

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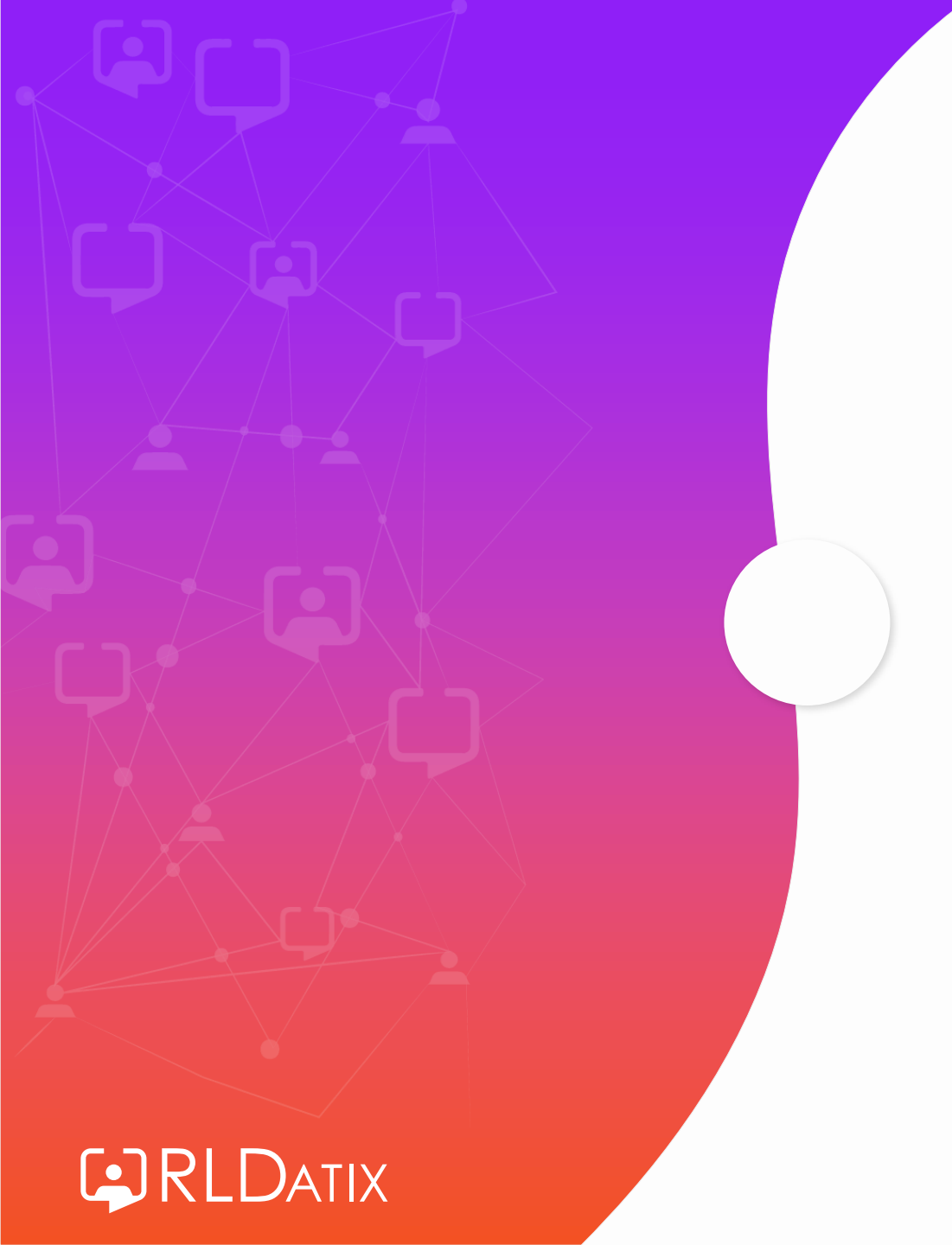
# Areas to Review – AutoRoster Settings

# Review – Auto Roster Settings

Admin > Rostering Admin > Auto Roster Settings

# Review – Auto Roster Settings

## Processing Stages – Demand/Shared/Personal Patterns

These stages determine the modes of processing that the AutoRoster follows. They are always processed in the same order:

- Demand, Shared & Personal Patterns
- Global Patterns
- Individual Duties
- Rest Duties

For the Demand, Shared & Personal patterns there are three shared settings that must be configured

- Create standby duty is vacant duty cannot be matched
- Create cancelled duty if assignment cannot be made
- Create cancelled unavailability if assignment cannot be made

### Processing Stages

- [ ] Process Demand Patterns
  - [ ] Create standby Duty if vacant duty cannot be matched
  - [ ] Create cancelled Duty if assignment cannot be made
  - [ ] Create cancelled Unavailability if assignment cannot be made

- [ ] Process Shared Patterns
  - [ ] Create standby Duty if vacant duty cannot be matched
  - [ ] Create cancelled Duty if assignment cannot be made
  - [ ] Create cancelled Unavailability if assignment cannot be made
  - [ ] Assign over cancelled Duties

- [ ] Process Personal Patterns
  - [ ] Create standby Duty if vacant duty cannot be matched
  - [ ] Create cancelled Duty if assignment cannot be made
  - [ ] Create cancelled Unavailability if assignment cannot be made

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# Review – Auto Roster Settings

**Processing Stages** – Demand/Shared/Personal Patterns

☐ Create standby Duty if vacant duty cannot be matched

☐ Create cancelled Duty if assignment cannot be made

☐ Create cancelled Unavailability if assignment cannot be made

If the AutoRoster cannot find a vacant duty that matched the pattern requirements, it creates an additional standby duty.

This setting makes it clear that the demand does not match the pattern, which means that the demand or the pattern may be configured incorrectly.

If the demand and pattern are both correct, the AutoRoster still fulfils the pattern requirement, but creates a duty assignment marked as standby and highlights it clearly in yellow.

Standby duties can be more easily replaced and are automatically removed when you assign another duty on top.

It is recommended that this setting is turned on.

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# Review – Auto Roster Settings

**Processing Stages** – Demand/Shared/Personal Patterns

☐ Create standby Duty if vacant duty cannot be matched

☐ Create cancelled Duty if assignment cannot be made

☐ Create cancelled Unavailability if assignment cannot be made

If the AutoRoster cannot find a vacant duty without breaking rules, or if a vacant duty is not available, it assigns a cancelled duty.

To help troubleshoot, the reason for the cancelled duty is also displayed. For example, 'Unachievable Pattern Duty'. This pattern then needs review and amendment before running auto roster again.

It is recommended that this setting is turned on.

# Review – Auto Roster Settings

**Processing Stages** – Demand/Shared/Personal Patterns

- [ ] Create standby Duty if vacant duty cannot be matched
- [ ] Create cancelled Duty if assignment cannot be made
- [ ] Create cancelled Unavailability if assignment cannot be made

If the AutoRoster cannot create an unavailability, it creates a cancelled unavailability. This setting makes it clear when the AutoRoster could not create the required unavailability.

This setting is only applicable if the pattern contains an unavailability.

It is recommended that this setting is turned on.

# Review – Auto Roster Settings

Global Patterns Processing Stage - The below settings determine whether AutoRoster will process global patterns. When processing if the engine cannot complete the entire global pattern, AutoRoster doesn't assign any duties of that pattern – this means that only the best pattern of duties is assigned.

This ensures that the applied patterns do not exceed staff contracted hours, this includes the margins set for that person (*Ref Data > Organisation > Settings > Auto Roster Contract Percentage for Assessing Global Patterns*). **By default, the margin is set to 2%.**

It is recommended that this setting is turned on. This setting prevents AutoRoster testing patterns over the contracted hours that are likely to fail.

This ensures that the only patterns that meet or exceed the staff contracted hours are applied. This includes the margins set for that person (*Ref Data > Organisation > Settings > Auto Roster Contract Percentage for Assessing Global Patterns*). **By default, the margin is set to 2%.**

It is recommended that this setting is turned off. This setting prevents AutoRoster testing part time patterns against full time staff who have an unavailability. This setting also prevents the assignment of patterns with single combined duties to staff members who work long days.

☐ Process Global Patterns

☐ Patterns must not exceed person's contracted hours (within margins)

☐ Patterns must not be less than person's contracted hours (within margins)

☐ Patterns must be between person's days per week and max days per week

This ensures that only patterns that fall between the staff member's days per week and max days per week are applied.

It is recommended not to tick this, so part time patterns can be tested against full timers who have some unavailability, and so patterns with single Combined Duties (LDs) can be assigned to those that work long days.

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# Review – Auto Roster Settings

## Processing Stages – Individual Duties & Rest Duties

These settings determine whether the AutoRoster should process individual duties, and if so, which duties should **not** be included.

With the individual duties the AutoRoster is looking for staff members to fill the remaining unfilled duties. At this stage, each duty is considered individually regardless of patterns. It will only assign duties that do not break any rules.

☐ Process Duties Individually

Excluded Shift Types from individual Duties

...

These settings determine whether the AutoRoster should process rest duties. At this stage it is looking to assign a rest duties in the remaining gaps on the roster.

The AutoRoster only assigned rest shifts to staff members who are close to, match, or exceed their contracted hours. This setting is useful to ensure that the AutoRoster doesn't assign rest shifts to staff members before attempting to assign duties to fill the remaining contracted hours.

The AutoRoster only assigns rest shifts to staff members who match or exceed their days per week. This setting is useful to ensure that rest shifts are not assigned to staff members before trying to fulfil their days per week.

☐ Process Rest Duties
  ☐ Only assign to people who are close to, match, or exceed their contracted hours
  ☐ Only assign to people who have matched or exceeded their days per week

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# Review – Auto Roster Settings

**Duties to Auto Roster** – these settings determine which duties AutoRoster should include, and will replace existing assignments when necessary.

The AutoRoster includes optional duties. It is recommended this setting is turned off most of the time. Generally optional duties should only be assigned manually.

To run a team only roster, when turned on, AutoRoster includes 'No Team' duties. So, if your staff members are split into teams, but the demand is not. When rostering a specific team turn this setting on so that 'no team' duties are considered when running the AutoRoster.

The AutoRoster assigns duties to staff who are on rest duties – it will automatically cancel the rest duty when it assigns the duty.
It is recommended that this setting is turned off most of the time, generally rest duties are not already assigned when running the AutoRoster.

The AutoRoster includes additional duties. It is recommended this setting is turned off most of the time. Generally, there are no additional duties when you run the AutoRoster.

The AutoRoster assigns duties to staff who are on optional duties – it will automatically cancel the optional duty when it assigns the duty.
It is recommended that this setting is turned off most of the time, generally optional duties are not already assigned when running the AutoRoster.

AutoRoster assigns duties that belong to an activity to staff who are on activity types marked as swappable in Ref Data > Rostering > Activities. It will automatically cancel the activity and assigns people to other duties linked to activities.
It is recommended this this setting is turned off most of the time, generally swappable duties are not already assigned when running the AutoRoster

## Duties to Auto Roster

- ☐ Include optional Duties
- ☐ Include additional Duties
- ☐ Include no Team Duties when Team only Auto Roster
- ☐ Include People on Optional Duties
- ☐ Include People on Rest Duties
- ☐ Include People on swappable activities
- ☐ Include Duties with mismatched Grade

If ticked the AutoRoster will lay down duties of a different grade to the staff member.

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# Review – Auto Roster Settings

**Vacant Duty Prioritisation** – these settings determine in which order vacant duties are processed. This is key for an effective, and successful, AutoRoster as they tell the AutoRoster which duties are the priority and to fill first. Each option needs an ascending or descending sort order.

Locations can have a priority set in reference data, and this can be useful to ensure important locations are filled first (if using location-based rostering).

This should be included in nearly every AutoRoster favourite. When sorted Descending, duties that require a more specific type of person will be filled first – these duties should be harder to fill so should generally be filled before the less specific duties. Several factors make a duty 'more specific':
1. Required Grade
2. Required Skills
3. Required Team
4. In Charge

When sorted Ascending, it will lay down Priority Shift 1 first, followed by 2,3 etc. The Shift Priority is set when creating a shift. For example, if Nights are the priority these would be set as shift priority 1 to be filled first.

↑ 1. Requirement Name (Ascending)

↑ 2. Location Priority (Ascending)

↑ 3. Is Optional (Ascending)

↓ 4. Specificity (Descending)

↑ 5. Grade Equivalence (Ascending)

↑ 6. Shift Priority (Ascending)

↓ 7. Occurence Number (Descending)

↓ 8. Weekend (Descending)

When sorted Ascending, it will sort the requirement names alphabetically. If a certain requirement needs filling first, a number can be put in front of the requirement name on the demand template, i.e., 01 RN Take Charge.

This is rarely used, as optional duties are very rarely auto rostered. However, when sorted Ascending, will sort by vacant duties that are optional after mandatory duties.

If sufficient staff of a lower grade are available, i.e., B5 RN, then the system will assign to these first. The assumption is that staff of a higher grade, i.e., B6 RN, will be more qualified and therefore are 'saved' for filling more specific shifts. Switch to Descending to get higher grade staff filled first.

This is a key setting and should be included in the sort order for AutoRoster favourites. This ensures an even spread of duties are filled - so its not just all Mondays and no Wednesdays. Or all nights but no days. It works by sorting by 'occurrence number' – how many of each shift is remaining. This is constantly recalculated by the AutoRoster as duties are filled and will look to pick off duties with the higher number as it goes. This should be sorted Descending to ensure an even spread of assignments across the days/weeks.

When sorted Descending, this will lay down weekends first.

# Review – Auto Roster Settings

Matching Criteria – these settings determine how the AutoRoster matches duties and how it treats rule breakages. These settings are rarely changed.

If rule breakage is allowed, the AutoRoster assigns a % fit to each staff member depending on how many rules are broken. The fit is lower if more rules break. This allows AutoRoster to break as few rules as possible. Staff member %'s are set in Ref Data.

The AutoRoster can break rules that are set to warning, it cannot break rules that are set to violation.

### Matching Criteria

**Percentage fit must exceed**

50

○ Treat All Warnings As Violations

◉ Do Not Treat Any Warnings As Violations

○ Specify Warnings To Treat As Violations

If turned on the AutoRoster cannot break any rules, regardless of whether those rules are set to warning or violation.
It is recommended this option is turned on.

The AutoRoster can break rules that are set to warning, it cannot break rules that are set to violation.

When selecting this option, Optima displays a list of warnings. Select which warnings you want AutoRoster to treat as violations.

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# Review – Auto Roster Settings

## Example AutoRoster Favourites

AutoRoster only processes Shared & Personal Patterns. This is recommended to be run when a roster first opens for requests to ensure that demand is allocated to those with agreed patterns before staff make requests.

AutoRoster processes the global patterns with only day and combined shift types included.

It will then process individual duties.

AutoRoster only processes global patterns with night shift type included. Nights will only be assigned as part of a desirable pattern.

It is not recommended to include individual duties as part of this process, as this is likely to cause an undesirable allocation of night shifts, which can then have an impact on the allocation of day shifts.

AutoRoster processed only rest duties during this stage. The AutoRoster will fill any remaining gaps on the roster with DO duties.

⭐ 01 Shared & Personal Patterns

⭐ 02 Nights Only

⭐ 03 Days

⭐ 04 DO Only

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# Next Session – Test & BAU

Thursday August 17$^{th}$ at 10am

In this final session we'll go through:

- Tips on what to look out for when testing your AutoRoster

- Troubleshooting best practice and review

- Transition to BAU

By the end of this session you should have:

- A clear understanding of the testing and troubleshooting process

- A defined review process

- A clear pathway to integrate the use and review of AutoRoster into BAU

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Thank you for your time

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