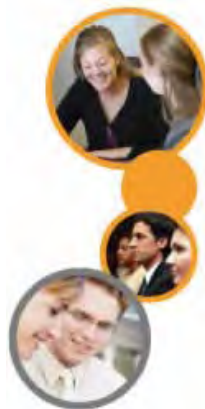


# Service Transformation

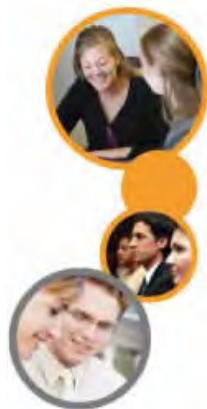
Maximising Resources to Service Delivery Need

3<sup>rd</sup> February 2010



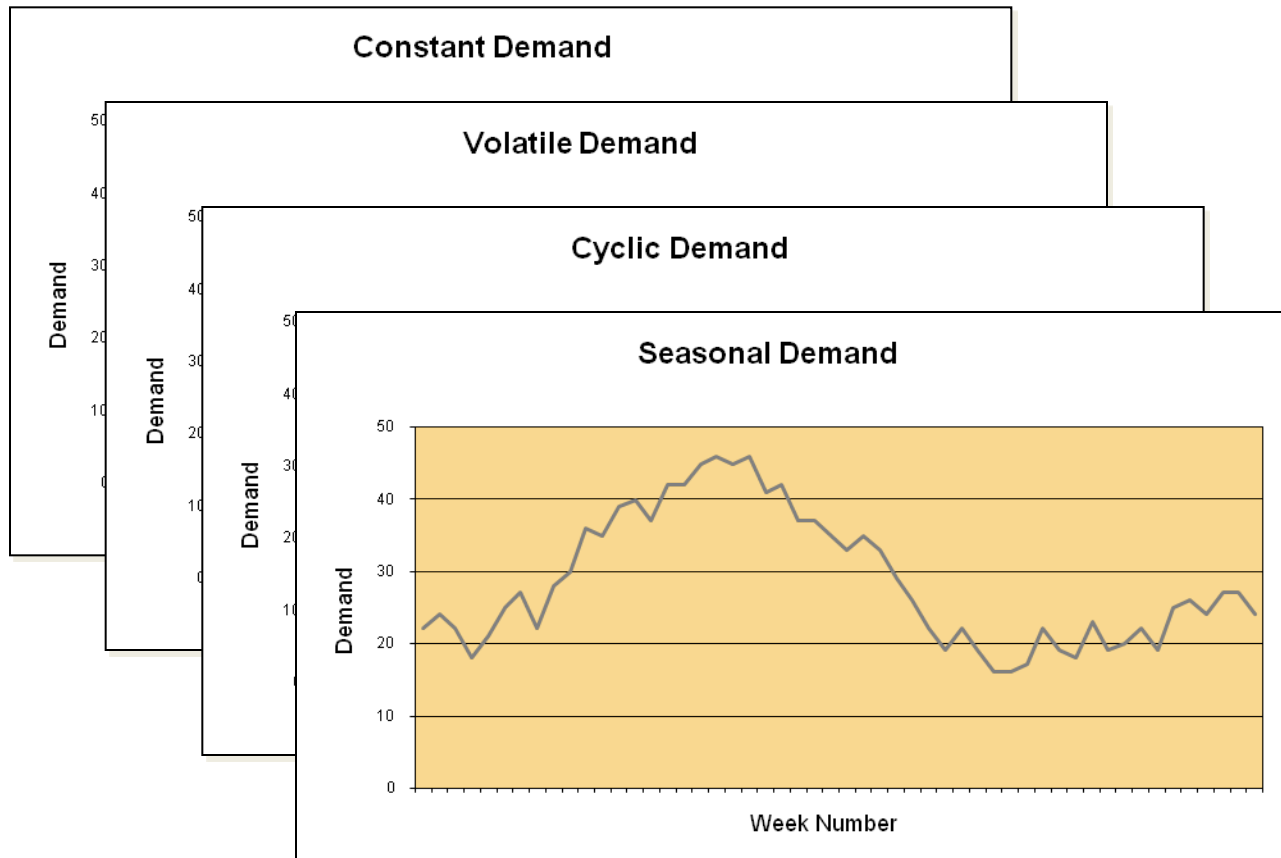
## Agenda

1. Coping with fluctuating & volatile working time demand
2. Welsh Authority case study
3. Further issues / examples / discussion



# Understanding the Business Need

Establish and understand the underlying business demand



# Understanding How We Buy Labour

## Traditionally:

39 hours per week contract, 25 days annual leave, 8 days public holiday

## Gross Hours:

52.18 weeks x 39 hours per week = 2,035 hours

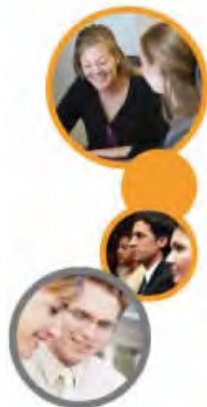
## Net Hours:

Annual holiday allowance (25 days ÷ 5) = 5.00 weeks

Public holiday allowance (8 days ÷ 5) = 1.60 weeks

= 6.60 weeks

45.58 weeks (52.18 – 6.60) x 39 hours = 1,778 hours



# Matching the Business Need

*"...we must have one presence 24 hours a day, 7 days a week in the Control Room, so how many people do we need?"*

**Traditionally:**

Business will be 365 days a year, 24 hours a day, = 8,766 hrs

Contract based on 1 on night and 1 on rest = 1,778 hrs

Labour structure based on  $(8,766 \div 1,778) = 4.93$

*"...we actually need the hours equivalent of 4.93 people, which realistically means 5 people working 1753 hours each, with 25 hours held in reserve".*

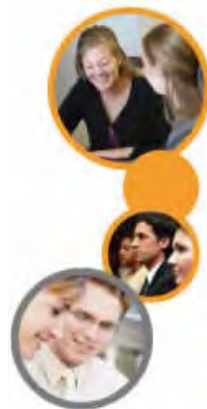


# Building a Rota Pattern with Rostered Time Off

## 5 Team Continuous System for Control Room Staff

Mon	Tue	Wed	Thu	Fri	Sat	Sun	Hours
M	M	M	M	M	M	M	56
A	A	A	A	A	A	A	56
N	N	N	N	N	N	N	56
-	-	-	-	-	-	-	0
-	-	-	-	-	-	-	0

Total hours= 168    Average hours = 33.6    Total weeks = 52.18  
 Average Annual hours = 1753    Reserve hours = 25



Continuous.wsp - WORK Scheduling

File Edit Rotas Shifts Tools Help

New Project Open Project Save Project Show Shift Library

Shortcuts

- Project Settings
- Shift Days
- Business Demand
- Find Shifts
- Rota Design
- Rota Calendars
- Explorer
- Calendars

Rota Design

Core

Rota Design

Period duration (weeks): 52.18  
 Shift formatting: Display Shift Codes i.e. 'M 8.00'  
 Selected Rota design: 12 Hour  
 Number of Teams/Cycles: 5

Provisional Statistics

**This Period**

Total hours per cycle: 168  
 Average hours per cycle: 33.6  
 Period hours per Team: 1,753  
 Target hours per Team: 1,755  
 Hours variance: 2

**All Periods**

Average hours per cycle: 33.6  
 Total duration of Periods: 52.18  
 Target hours per Team: 1,755  
 Project hours per Team: 1,753  
 Traditional equivalent: 38.47  
 Total hours variance: 2

**Project Settings**

Target hours (net): 1,755  
 Traditional equivalent: 38.5

Rota Designer

Week/Team	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Totals
1	N 12.0	N 12.0				D 12.0	D 12.0	48
2			N 12.0	N 12.0	N 12.0			36
3	D 12.0	D 12.0				N 12.0	N 12.0	48
4			D 12.0	D 12.0	D 12.0			36
5								0
<b>Totals</b>	<b>24</b>	<b>24</b>	<b>24</b>	<b>24</b>	<b>24</b>	<b>24</b>	<b>24</b>	<b>168</b>

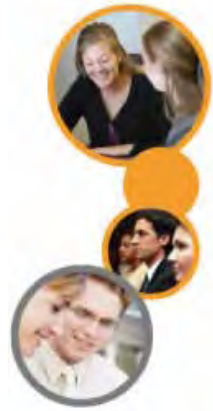
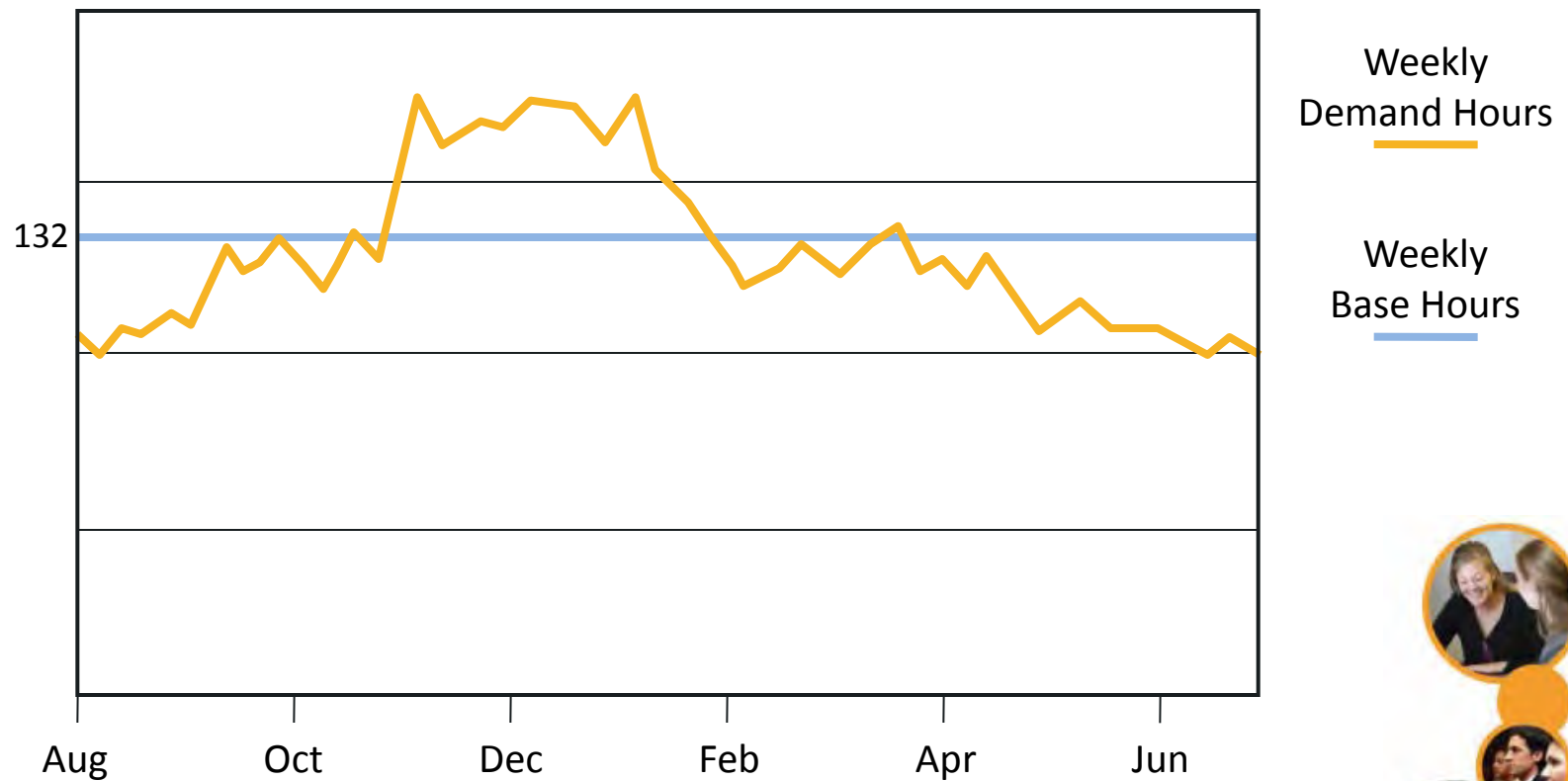
Shift Code	Colour	Start Time	End Time	Break Length	Paid Break	Duration (on Site)	Duration (Net of breaks)
M 8.00		06:00	14:00	30	Yes	8 hrs, 0 mins	8 hrs, 0 mins
A 8.00		14:00	22:00	30	Yes	8 hrs, 0 mins	8 hrs, 0 mins
N 8.00		22:00	06:00	30	Yes	8 hrs, 0 mins	8 hrs, 0 mins
D 12.0		06:00	18:00	45	Yes	12 hrs, 0 mins	12 hrs, 0 mins
N 12.0		18:00	06:00	45	Yes	12 hrs, 0 mins	12 hrs, 0 mins

01/03/2005



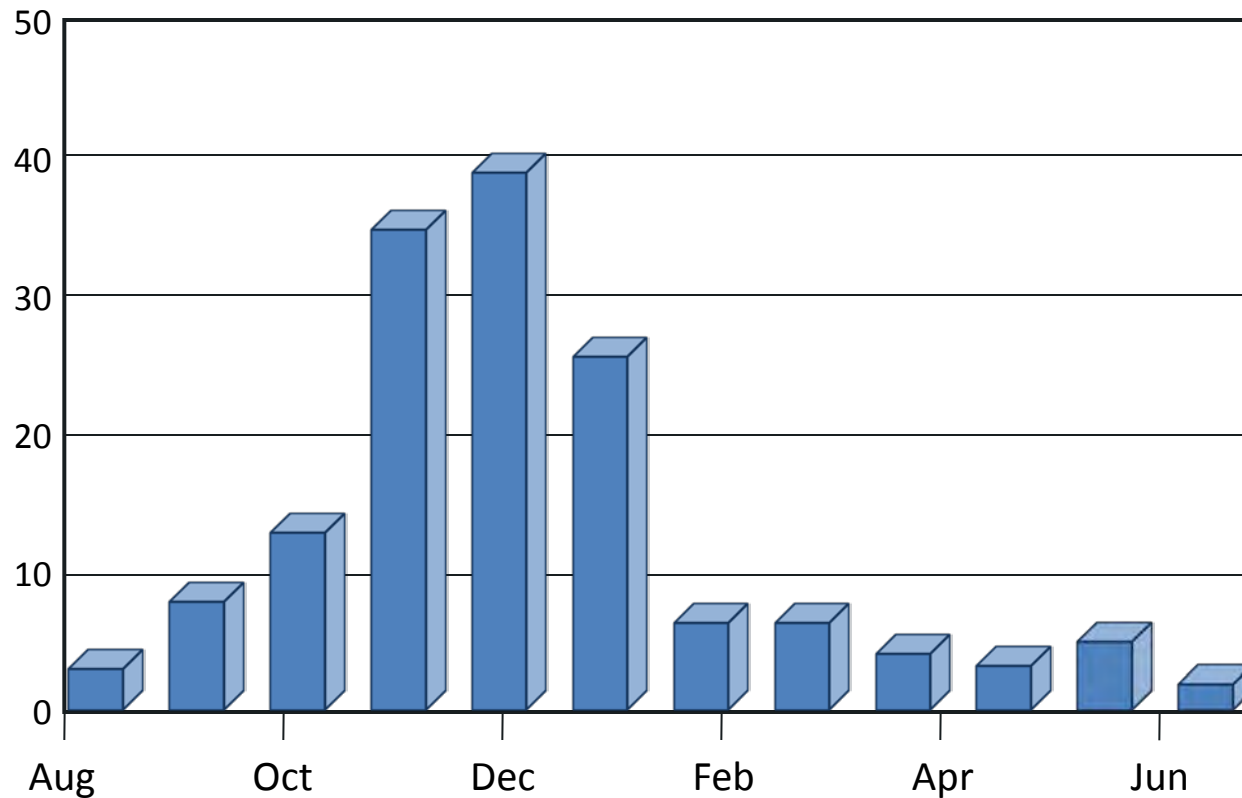
# Seasonal Demand Profile

## Service Engineering Hours Per Week

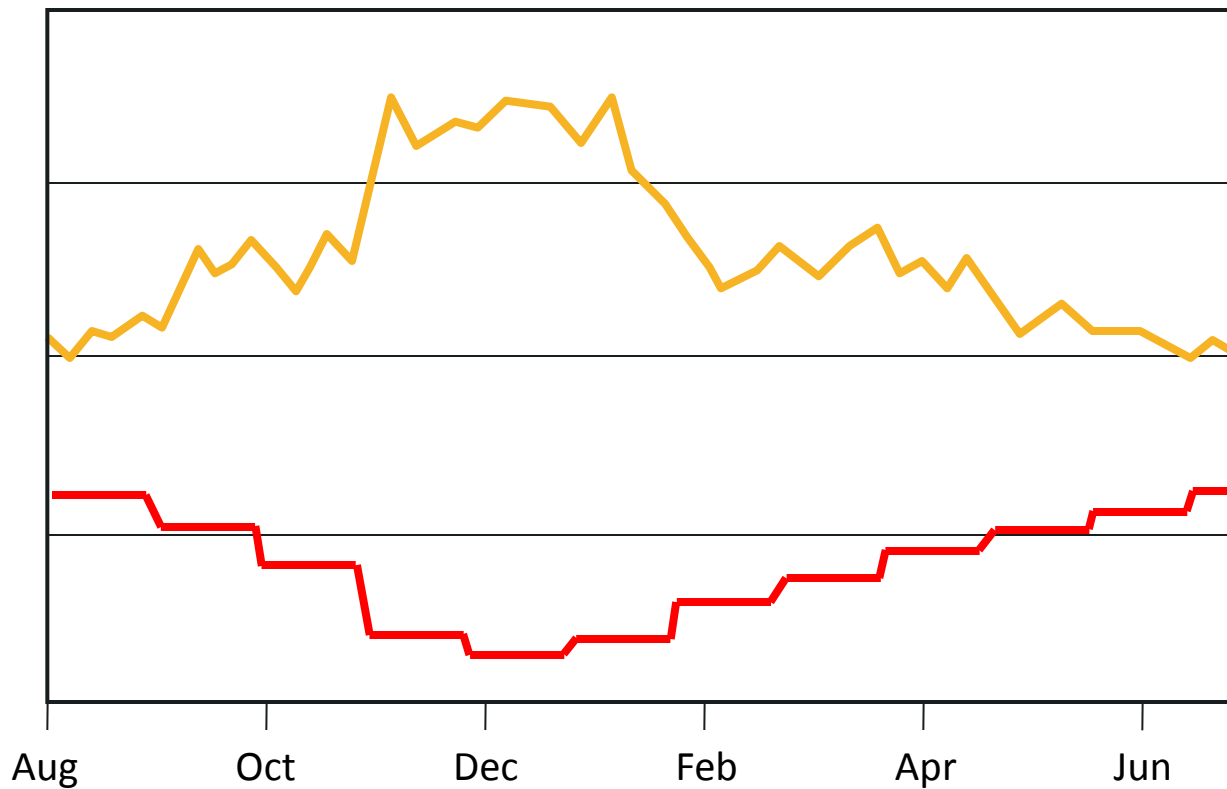


# Annual Overtime Profile (%)

## Monthly Percentage



# Labour Cost Per Unit

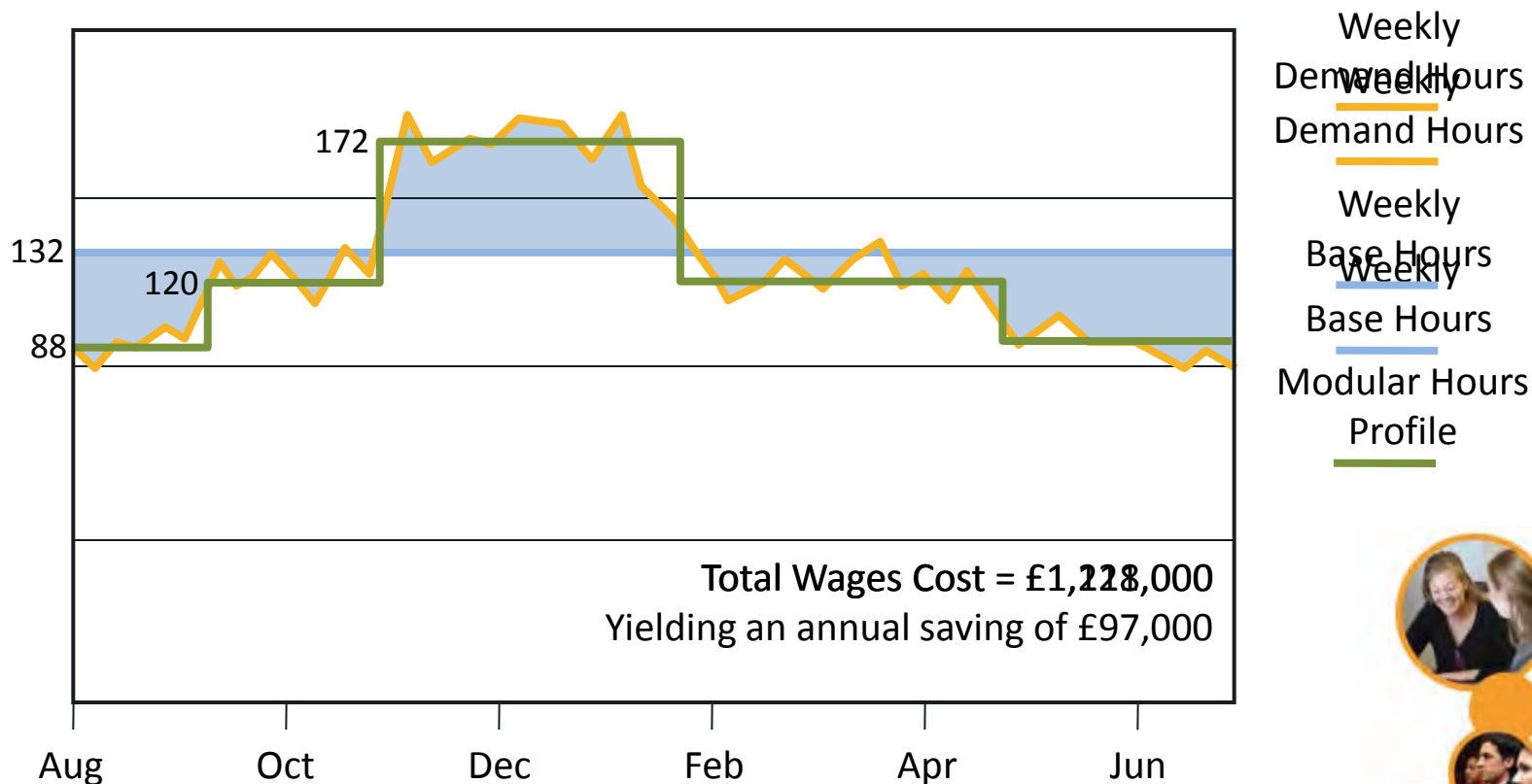


'Worst' cost is 48% greater than 'best' cost



# Seasonal Demand Profile & Modular Solution

## Service Engineering Hours Per Week



Weekly Demand Hours  
Weekly Base Hours  
Modular Hours Profile



# 4 Team Seasonal Rota Progression

Low Season  
10 Weeks

Week/Team	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Totals
1		Day 8	Day 8	Day 8	Day 8			32
2	Day 8	Day 8		Day 8	Day 8			32
3	Day 8	Day 8	Day 8					24
4								0
Totals	16	24	16	16	16	0	0	88

Core Season  
26 Weeks

Week/Team	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Totals
1	Day 8	Day 8	Day 8	Day 8	Day 8			40
2	Day 8	Day 8	Day 8	Day 8	Day 8			40
3	Day 8	Day 8	Day 8	Day 8	Day 8			40
4								0
Totals	24	24	24	24	24	0	0	120

High Season  
16 Weeks

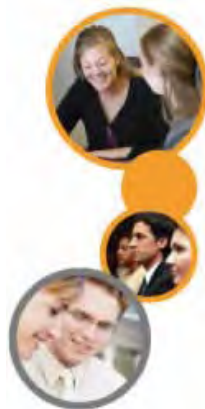
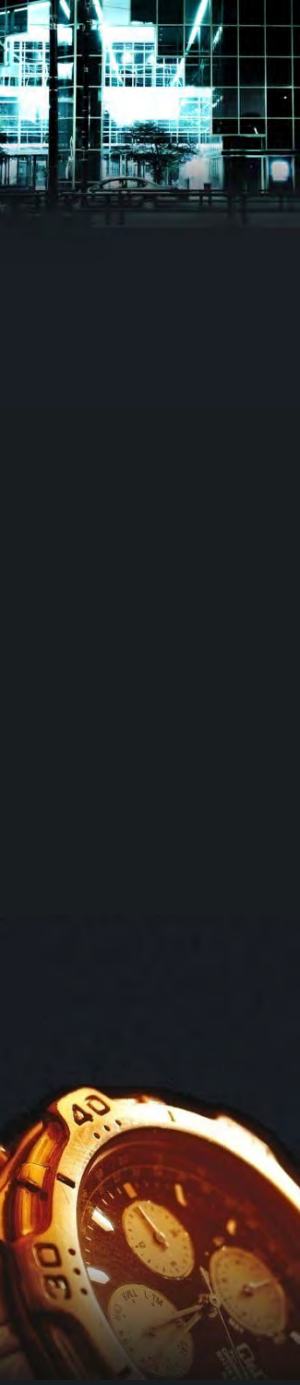
Week/Team	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Totals
1	Day 10	Day 10	Day 8	Day 8	Day 8			44
2	Day 8	Day 8	Day 8	Day 8	Day 8	Day 8		48
3	Day 8	Day 10	Day 10	Day 8	Day 8			44
4	Day 8	Day 8	Day 10	Day 10				36
Totals	34	36	36	34	24	8	0	172

Average of 1696 hours, with 36 hours unrostered reserve



# Welsh Authority Case Study

## CCTV Monitoring





# Our Brief

- > To review the shift rota for nine staff employed within the CCTV monitoring suite
- > The council operates a 24 hour / 7 day continuous service throughout the year
- > All staff are contracted to work an average 37 hour week
- > Shift patterns are dictated by incident rates
- > Equality of shifts are required over an acceptable period of time.



# Constraints



- > “Hotspot” times (Friday to Sunday) require extra cover
- > Bank holidays to be considered in equality of shifts
- > No long-term pairing of staff
- > Shift pattern to accommodate a small handover
- > Working time regulations
  
- > To consider: -
  - >Extended hours
  - >“Holidays included” rotas
  - >Dealing with sickness absence.



# Health & Safety

## From Health & Safety Executive guide to “Shift Work and Fatigue”

- > **Employers have a duty of care in law for their employees**
- > **This duty includes removing or controlling the risks of fatigue by properly organising and planning shift-working arrangements**
- > **The Working Time Regulations are also relevant to the planning and organisation of shifts, especially night shifts.**



# Holidays – Gross .v. Net Rosters

- **Gross**

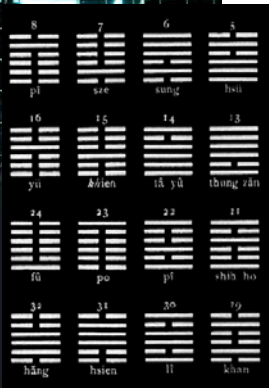
- Plan all the hours that a person is paid
- Holidays on request
- Conflicts where more than one want the same time off
- Typically increased absence
- High management / administration time

- **Net**

- Plan only the hours that someone is going to work (paid hrs – their holiday entitlement)
- Build in time off to match preferred holiday curve (e.g. 2 weeks in Summer)
- Allow shift swaps
- Low management / administration time.



# Mathematics



> There are 21 different ways to allocate 5 shifts per week

> If you wanted to schedule for 2 staff, the 21 ways are squared = 441

> For 9 staff, 21 to the power of 9

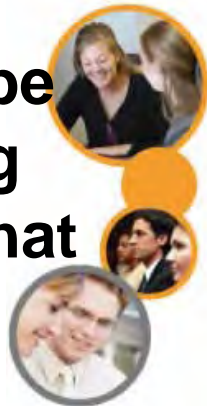
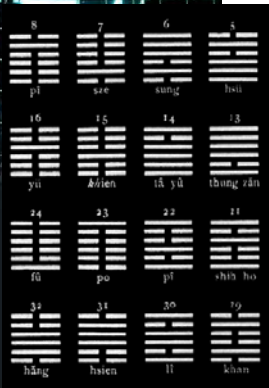
$(21 \times 21 \times 21 \times 21 \times 21 \times 21 \times 21 \times 21 \times 21) =$   
**794 billion !!**

	MON	TUE	WED	THU	FRI	SAT	SUN
WEEK 1	D	D	D	D	D		
WEEK 2	D	D	D	D		D	
WEEK 3	D	D	D	D			D
WEEK 4	D	D	D		D	D	
WEEK 5	D	D	D		D		D
WEEK 6	D	D	D			D	D
WEEK 7	D	D		D	D	D	
WEEK 8	D	D		D	D		D
WEEK 9	D	D		D		D	D
WEEK 10	D	D			D	D	D
WEEK 11	D		D	D	D	D	
WEEK 12	D		D	D	D		D
WEEK 13	D		D	D		D	D
WEEK 14	D		D		D	D	D
WEEK 15	D			D	D	D	D
WEEK 16		D	D	D	D	D	
WEEK 17		D	D	D	D		D
WEEK 18		D	D	D		D	D
WEEK 19		D	D		D	D	D
WEEK 20		D		D	D	D	D
WEEK 21			D	D	D	D	D



# Mathematics

- > Add in the constraining factors and it definitely requires a computer !!
- > Spreadsheets are useful to a degree but still require manual input
- > Bespoke software exists for generating shift patterns
- > *Working Time Solutions Ltd* provide consultancy and software solutions
- > “... a powerful and flexible tool which can be used to solve all manner of labour planning problems and to explore variables on a ‘What if ?’ Basis”.



# WORK Scheduling™

> Example: 8 and 7 hour “Hotspot” shifts

WORK Scheduling™ Core, Rota '8s V1'

Week/Team	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Totals
1	D 0600-1410	D 0600-1410	D 0600-1410		A 1800-0100	A 1800-0100	A 1800-0100	45.51
2	A 1400-2210	A 1400-2210	A 1400-2210			D 0600-1410	D 0600-1410	40.85
3	D 0600-1410	D 0600-1410		A 1400-2210	A 1400-2210	A 1400-2210	A 1400-2210	49.02
4	A 1400-2210			D 0600-1410	D 0600-1410	N 2200-0610	N 2200-0610	40.85
5								0
6			D 0600-1410	D 0600-1410	D 0600-1410	A 1400-2210	A 1400-2210	40.85
7		A 1400-2210	A 1400-2210	A 1400-2210	A 1400-2210			32.68
8	N 2200-0610	N 2200-0610	N 2200-0610	N 2200-0610	N 2200-0610			40.85
9								0
Totals	40.85	40.85	40.85	40.85	47.85	39.68	39.68	290.61

> Map out the required shifts over the week, as above

> Ensure the correct cover on each day

> 10 minute overlap for changeover.



# Alternative Rotas

> Example: Mix of 6, 8 and 10 hour shifts.

WORK Scheduling™

Core, Rota '6-10s V1'

Week/Team	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Totals
1	D 0600-1410	D 0600-1410	D 0600-1410		A 1800-0100	A 1800-0100	A 1800-0100	45.51
2	A 1400-2210	A 1400-2210	A 1400-2210			D 0600-1410	D 0600-1410	40.85
3	D 0600-1410	D 0600-1410		A 1400-2210	A 1400-2210	A 1400-2210	A 1400-2210	49.02
4	A6 1400-2010			D 0600-1410	D 0600-1410	N10 2000-0610	N10 2000-0610	42.85
5								0
6			D 0600-1410	D 0600-1410	D 0600-1410	A6 1400-2010	A6 1400-2010	36.85
7		A6 1400-2010	A6 1400-2010	A6 1400-2010	A6 1400-2010			24.68
8	N10 2000-0610	N10 2000-0610	N10 2000-0610	N10 2000-0610	N10 2000-0610			50.85
9								0
Totals	40.85	40.85	40.85	40.85	47.85	39.68	39.68	290.61



# Alternative Rotas

- > Example: Mix of 8 & 12 hour shifts
- > 12 hour day shift reduces manpower required.

WORK Scheduling™

Core, Rota '8\_12s V1'

Week/Team	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Totals
1	D 0600-1410	D 0600-1410	D 0600-1410		A 1800-0100	A 1800-0100	A 1800-0100	45.51
2	N 12 2000-0800	N 12 2000-0800				D12 0800-2000	D12 0800-2000	48.68
3	D12 0800-2000	D12 0800-2000	D12 0800-2000					36.51
4								0
5			A 1400-2210	A 1400-2210	A 1400-2210	N 12 2000-0800	N 12 2000-0800	48.89
6				D12 0800-2000	D12 0800-2000			24.34
7								0
8				D 0600-1410	D 0600-1410	A 1400-2210	A 1400-2210	32.68
9	A 1400-2210	A 1400-2210	N 12 2000-0800	N 12 2000-0800	N 12 2000-0800			52.89
Totals	40.68	40.68	40.68	40.68	47.68	39.51	39.51	289.42



# WORK Scheduling™

WORK Scheduling™

Rota Calendar - 8s V1

Date	Day	Team 1	Team 2	Team 3	Team 4	Team 5	Team 6	Team 7	Team 8	Team 9
01/09/2009	Tue	D 0600-1410	A 1400-2210	D 0600-1410						
02/09/2009	Wed	D 0600-1410	A 1400-2210							
03/09/2009	Thu			A 1400-2210	D 0600-1410		D 0600-1410	A 1400-2210	N 2200-0610	
04/09/2009	Fri	A 1800-0100		A 1400-2210	D 0600-1410		D 0600-1410	A 1400-2210	N 2200-0610	
05/09/2009	Sat	A 1800-0100	D 0600-1410	A 1400-2210	N 2200-0610		A 1400-2210			
06/09/2009	Sun	A 1800-0100	D 0600-1410	A 1400-2210	N 2200-0610		A 1400-2210			
07/09/2009	Mon	A 1400-2210	D 0600-1410	A 1400-2210				N 2200-0610		D 0600-1410
08/09/2009	Tue	A 1400-2210	D 0600-1410				A 1400-2210	N 2200-0610		D 0600-1410
09/09/2009	Wed	A 1400-2210				D 0600-1410	A 1400-2210	N 2200-0610		D 0600-1410
10/09/2009	Thu		A 1400-2210	D 0600-1410		D 0600-1410	A 1400-2210	N 2200-0610		
11/09/2009	Fri		A 1400-2210	D 0600-1410		D 0600-1410	A 1400-2210	N 2200-0610		A 1800-0100
12/09/2009	Sat	D 0600-1410	A 1400-2210	N 2200-0610		A 1400-2210				A 1800-0100
13/09/2009	Sun	D 0600-1410	A 1400-2210	N 2200-0610		A 1400-2210				A 1800-0100
14/09/2009	Mon	D 0600-1410	A 1400-2210				N 2200-0610		D 0600-1410	A 1400-2210
15/09/2009	Tue	D 0600-1410				A 1400-2210	N 2200-0610		D 0600-1410	A 1400-2210
16/09/2009	Wed				D 0600-1410	A 1400-2210	N 2200-0610		D 0600-1410	A 1400-2210
17/09/2009	Thu	A 1400-2210	D 0600-1410		D 0600-1410	A 1400-2210	N 2200-0610			
18/09/2009	Fri	A 1400-2210	D 0600-1410		D 0600-1410	A 1400-2210	N 2200-0610		A 1800-0100	
19/09/2009	Sat	A 1400-2210	N 2200-0610		A 1400-2210				A 1800-0100	D 0600-1410
20/09/2009	Sun	A 1400-2210	N 2200-0610		A 1400-2210				A 1800-0100	D 0600-1410
21/09/2009	Mon	A 1400-2210				N 2200-0610		D 0600-1410	A 1400-2210	D 0600-1410
22/09/2009	Tue				A 1400-2210	N 2200-0610		D 0600-1410	A 1400-2210	D 0600-1410
23/09/2009	Wed			D 0600-1410	A 1400-2210	N 2200-0610		D 0600-1410	A 1400-2210	
24/09/2009	Thu	D 0600-1410		D 0600-1410	A 1400-2210	N 2200-0610				A 1400-2210
25/09/2009	Fri	D 0600-1410		D 0600-1410	A 1400-2210	N 2200-0610		A 1800-0100		A 1400-2210
26/09/2009	Sat	N 2200-0610		A 1400-2210				A 1800-0100	D 0600-1410	A 1400-2210
27/09/2009	Sun	N 2200-0610		A 1400-2210				A 1800-0100	D 0600-1410	A 1400-2210
28/09/2009	Mon				N 2200-0610		D 0600-1410	A 1400-2210	D 0600-1410	A 1400-2210

- > Rota calendar gives the whole year's shifts for every staff member
- > Prints on to just 6 pages.



# WORK Scheduling™

## WORK Scheduling Rota Calendar

Schedule Statistics	Avg	Team 1	Team 2	Team 3	Team 4	Team 5	Team 6	Team 7	Team 8	Team 9
Total hours scheduled	1,692.97	1,710.3	1,689.3	1,664.8	1,661.3	1,669.5	1,710.3	1,702.2	1,661.3	1,677.7
Variance from Target Hours (1664)	18.97	46.3	25.3	0.8	2.70	5.5	46.3	38.2	2.70	13.7
This Calendar variance	19.89	47	26	0	2	7	47	39	2	15
Total Saturdays worked	28.89	30	29	28	28	28	29	29	29	30
Total Sundays worked	28.89	30	29	28	28	28	29	29	29	30
Public Holidays worked	4.78	4	2	5	6	7	4	4	5	6
Total days off scheduled	156.44	153	156	159	159	158	153	154	159	157
Complete scheduled weekends off	23.11	22	23	24	24	24	23	23	23	22
Total shifts scheduled	208.56	212	209	206	206	207	212	211	206	208
Total 'D 0600-1410' shifts scheduled	69.56	71	69	68	68	70	70	69	69	72
Total 'D12 0800-2000' shifts scheduled	0.00	0	0	0	0	0	0	0	0	0
Total 'A 1400-2210' shifts scheduled	61.11	64	63	61	78	79	64	62	78	61
Total 'N 12 2000-0800' shifts scheduled	0.00	0	0	0	0	0	0	0	0	0
Total 'N 2200-0610' shifts scheduled	40.56	39	42	42	42	40	40	42	41	37
Total 'A 1800-0100' shifts scheduled	17.33	18	15	15	10	10	18	18	18	18

> **Statistics provide a mass of information (e.g. hours and shifts scheduled over the year, numbers of weekends and bank holidays worked and total days off).**



# Individual / Team Calendars

8 hr & "Hotspot" shifts.

## WORK Scheduling Rota Calendar - Team1

	Sep 09	Oct 09	Nov 09	Dec 09	Jan 10	Feb 10	Mar 10	Apr 10	May 10	Jun 10	Jul 10	Aug 10		
Sun			1									1	A 1400-2210	Sun
Mon			2 D 0600-1410			1						2	A 1400-2210	Mon
Tue	1 D 0600-1410		3 D 0600-1410	1		2	1			1		3		Tue
Wed	2 D 0600-1410		4 D 0600-1410	2		3	2			2		4		Wed
Thu	3	1	5	3		4	3			3	D 0600-1410	1 N 2200-0610	5 D 0600-1410	Thu
Fri	4 A 1800-0100	2	6 A 1800-0100	4	1	5	4	1 D 0600-1410		4 D 0600-1410	2 N 2200-0610	6 D 0600-1410	6 D 0600-1410	Fri
Sat	5 A 1800-0100	3	7 A 1800-0100	5	2	6	5	2 D 0600-1410		5 N 2200-0610	3	7 N 2200-0610	7 N 2200-0610	Sat
Sun	6 A 1800-0100	4	8 A 1800-0100	6	3	7	6	3 N 2200-0610	1	6 N 2200-0610	4	8 N 2200-0610	8 N 2200-0610	Sun
Mon	7 A 1400-2210	5	9 A 1400-2210	7	4 D 0600-1410	8	7 D 0600-1410	4 N 2200-0610	2	7	5	9		Mon
Tue	8 A 1400-2210	6	10 A 1400-2210	8	5 D 0600-1410	9	8 D 0600-1410	5	3	8	6	10		Tue
Wed	9 A 1400-2210	7 D 0600-1410	11 A 1400-2210	9 D 0600-1410	6 D 0600-1410	10	9 D 0600-1410	6	4	9	7	11		Wed
Thu	10	8 D 0600-1410	12	10 D 0600-1410	7	11	10 D 0600-1410	7	5	10	8	12		Thu
Fri	11	9 D 0600-1410	13	11 D 0600-1410	8 A 1800-0100	12	11 A 1800-0100	8	6	11	9	13		Fri
Sat	12 D 0600-1410	10 A 1400-2210	14 D 0600-1410	12 A 1400-2210	9 A 1800-0100	13	12 A 1800-0100	9	7	12	10	14		Sat
Sun	13 D 0600-1410	11 A 1400-2210	15 D 0600-1410	13 A 1400-2210	10 A 1800-0100	14	13 A 1800-0100	10	8	13	11	15		Sun
Mon	14 D 0600-1410	12	16 D 0600-1410	14	11 A 1400-2210	15	14 A 1400-2210	11	9	14	12	16		Mon
Tue	15 D 0600-1410	13 A 1400-2210	17 D 0600-1410	15 A 1400-2210	12 A 1400-2210	16	15 A 1400-2210	12	10 D 0600-1410	15	13 D 0600-1410	17		Tue
Wed	16	14 A 1400-2210	18	16 A 1400-2210	13 A 1400-2210	17	16 A 1400-2210	13	11 D 0600-1410	16	14 D 0600-1410	18		Wed
Thu	17 A 1400-2210	15 A 1400-2210	19 A 1400-2210	17 A 1400-2210	14	18	17 A 1400-2210	14	12 D 0600-1410	17	15 D 0600-1410	19		Thu
Fri	18 A 1400-2210	16 A 1400-2210	20 A 1400-2210	18 A 1400-2210	15	19	18 A 1400-2210	15	13 A 1800-0100	18	16 A 1800-0100	20		Fri
Sat	19 A 1400-2210	17	21 A 1400-2210	19	16 D 0600-1410	20	19 D 0600-1410	16	14 A 1800-0100	19	17 A 1800-0100	21		Sat
Sun	20 A 1400-2210	18	22 A 1400-2210	20	17 D 0600-1410	21	20 D 0600-1410	17	15 A 1800-0100	20	18 A 1800-0100	22		Sun
Mon	21 A 1400-2210	19 N 2200-0610	23 A 1400-2210	21 N 2200-0610	18 D 0600-1410	22	21 D 0600-1410	18	16 A 1400-2210	21	19 A 1400-2210	23		Mon
Tue	22	20 N 2200-0610	24	22 N 2200-0610	19 D 0600-1410	23	22 D 0600-1410	19	17 A 1400-2210	22	20 A 1400-2210	24		Tue
Wed	23	21 N 2200-0610	25	23 N 2200-0610	20	24	23 A 1400-2210	20	18 A 1400-2210	23	21 A 1400-2210	25		Wed
Thu	24 D 0600-1410	22 N 2200-0610	26 D 0600-1410	24 N 2200-0610	21 A 1400-2210	25	24 A 1400-2210	21	19 A 1400-2210	24	22 A 1400-2210	26		Thu
Fri	25 D 0600-1410	23 N 2200-0610	27 D 0600-1410	25 N 2200-0610	22 A 1400-2210	26	25 A 1400-2210	22	20 A 1400-2210	25	23 A 1400-2210	27		Fri
Sat	26 N 2200-0610	24	28 N 2200-0610	26	23 A 1400-2210	27	26 A 1400-2210	23	21 D 0600-1410	26	24 D 0600-1410	28		Sat
Sun	27 N 2200-0610	25	29 N 2200-0610	27	24 A 1400-2210	28	27 A 1400-2210	24	22 D 0600-1410	27	25 D 0600-1410	29		Sun
Mon	28	26	30	28	25 A 1400-2210	29	28 A 1400-2210	25	23 D 0600-1410	28	26 D 0600-1410	30		Mon
Tue	29	27		29	26	30	29 N 2200-0610	26	24 D 0600-1410	29	27 D 0600-1410	31		Tue
Wed	30	28		30	27	31	30 N 2200-0610	27	25 D 0600-1410	30	28 D 0600-1410			Wed
Thu	29			31	28 D 0600-1410		29 N 2200-0610	28	26 A 1400-2210	29	29 A 1400-2210			Thu
Fri	30				29 D 0600-1410		30 N 2200-0610	29	27 A 1400-2210	30	30 A 1400-2210			Fri
Sat		31			30 N 2200-0610			30	28 A 1400-2210		31 A 1400-2210			Sat
Sun					31 N 2200-0610			31	29 A 1400-2210					Sun
Mon									30 A 1400-2210					Mon

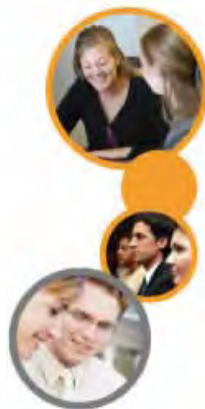
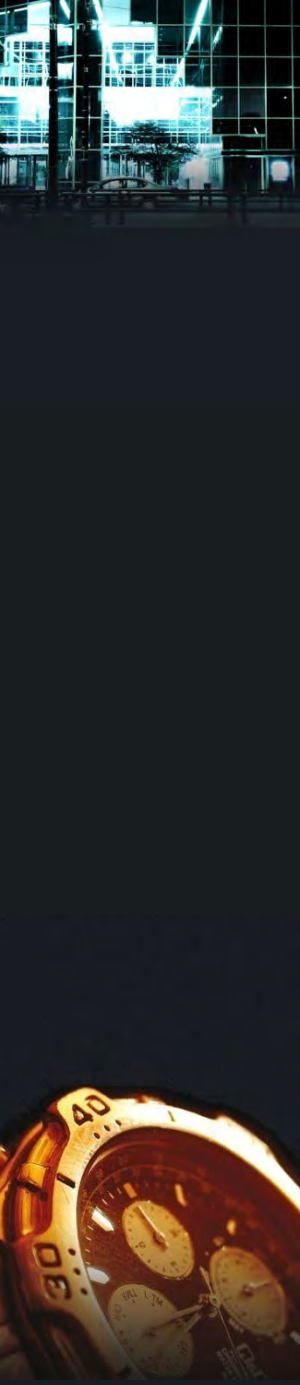
# Individual / Team Calendars

Introduced 12 hour shifts to demo greater white space.

## WORK Scheduling Rota Calendar - Team1

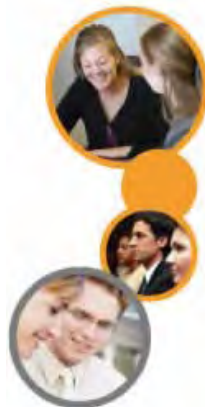
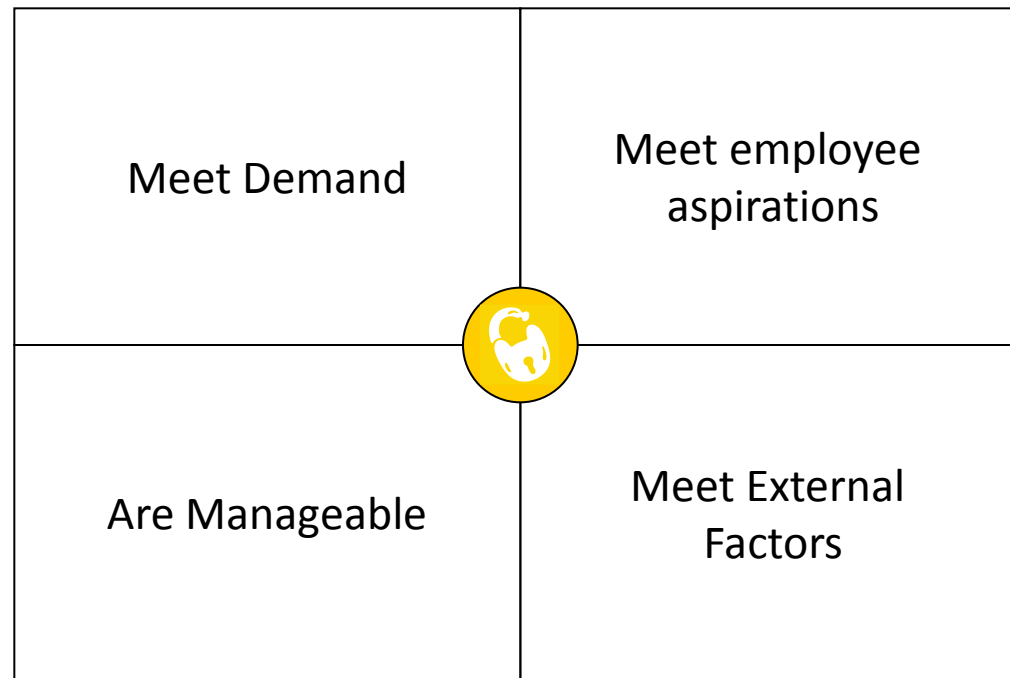
	Sep 09	Oct 09	Nov 09	Dec 09	Jan 10	Feb 10	Mar 10	Apr 10	May 10	Jun 10	Jul 10	Aug 10		
Sun			1									1	Sun	
Mon			2 D 0600-1410			1	1 A 1400-2210						2	Mon
Tue	1 D 0600-1410		3 D 0600-1410	1		2	2 A 1400-2210			1			3	Tue
Wed	2 D 0600-1410		4 D 0600-1410	2 A 1400-2210		3 A 1400-2210	3 N 12 2000-0800			2			4	Wed
Thu	3	1 A 1400-2210	5	3 A 1400-2210		4 A 1400-2210	4 N 12 2000-0800	1		3	1 D 0600-1410		5	Thu
Fri	4 A 1800-0100	2 A 1400-2210	6 A 1800-0100	4 A 1400-2210	1 N 12 2000-0800	5 A 1400-2210	5 N 12 2000-0800	2		4	2 D 0600-1410		6	Fri
Sat	5 A 1800-0100	3 N 12 2000-0800	7 A 1800-0100	5 N 12 2000-0800	2	6 N 12 2000-0800	6	3	1 A 1400-2210	5	3 A 1400-2210	7	Sat	
Sun	6 A 1800-0100	4 N 12 2000-0800	8 A 1800-0100	6 N 12 2000-0800	3	7 N 12 2000-0800	7	4	2 A 1400-2210	6	4 A 1400-2210	8	Sun	
Mon	7 N 12 2000-0800	5	9 N 12 2000-0800	7	4 D 0600-1410	8	8 D 0600-1410	5	3 A 1400-2210	7	5 A 1400-2210	9	Mon	
Tue	8 N 12 2000-0800	6	10 N 12 2000-0800	8	5 D 0600-1410	9	9 D 0600-1410	6	4 A 1400-2210	8	6 A 1400-2210	10	Tue	
Wed	9	7	11	9	6 D 0600-1410	10	10 D 0600-1410	7 A 1400-2210	5 N 12 2000-0800	9 A 1400-2210	7 N 12 2000-0800	11 A 1400-2210	Wed	
Thu	10	8 D 12 0800-2000	12	10 D 12 0800-2000	7	11 D 12 0800-2000	11	8 A 1400-2210	6 N 12 2000-0800	10 A 1400-2210	8 N 12 2000-0800	12 A 1400-2210	Thu	
Fri	11	9 D 12 0800-2000	13	11 D 12 0800-2000	8 A 1800-0100	12 D 12 0800-2000	12	9 A 1400-2210	7 N 12 2000-0800	11 A 1400-2210	9 N 12 2000-0800	13 A 1400-2210	Fri	
Sat	12 D 12 0800-2000	10	14 D 12 0800-2000	12	9 A 1800-0100	13	13 A 1800-0100	10 N 12 2000-0800	8	12 N 12 2000-0800	10	14 N 12 2000-0800	Sat	
Sun	13 D 12 0800-2000	11	15 D 12 0800-2000	13	10 A 1800-0100	14	14 A 1800-0100	11 N 12 2000-0800	9	13 N 12 2000-0800	11	15 N 12 2000-0800	Sun	
Mon	14 D 12 0800-2000	12	16 D 12 0800-2000	14	11 N 12 2000-0800	15	15 N 12 2000-0800	12	10 D 0600-1410	14	12 D 0600-1410	16	Mon	
Tue	15 D 12 0800-2000	13	17 D 12 0800-2000	15	12 N 12 2000-0800	16	16 N 12 2000-0800	13	11 D 0600-1410	15	13 D 0600-1410	17	Tue	
Wed	16 D 12 0800-2000	14	18 D 12 0800-2000	16	13	17	17	14	12 D 0600-1410	16	14 D 0600-1410	18	Wed	
Thu	17	15	19	17	14	18	18	15	13 D 0600-1410	17	15 D 0600-1410	19	Thu	
Fri	18	16	20	18	15	19	19	16	14 D 12 0800-2000	18	16 D 12 0800-2000	20	Fri	
Sat	19	17	21	19	16 D 12 0800-2000	20	20 D 12 0800-2000	17	15 A 1800-0100	19	17 A 1800-0100	21	Sat	
Sun	20	18	22	20	17 D 12 0800-2000	21	21 D 12 0800-2000	18	16 A 1800-0100	20	18 A 1800-0100	22	Sun	
Mon	21	19	23	21	18 D 12 0800-2000	22	22 D 12 0800-2000	19	17 N 12 2000-0800	21	19 N 12 2000-0800	23	Mon	
Tue	22	20	24	22	19 D 12 0800-2000	23	23 D 12 0800-2000	20	18 N 12 2000-0800	22	20 N 12 2000-0800	24	Tue	
Wed	23	21	25	23	20 D 12 0800-2000	24	24 D 12 0800-2000	21	19	23	21	25	Wed	
Thu	24	22 D 0600-1410	26	24 D 0600-1410	21	25 D 0600-1410	25	22	20	24	22	26	Thu	
Fri	25	23 D 0600-1410	27	25 D 0600-1410	22	26 D 0600-1410	26	23	21	25	23	27	Fri	
Sat	26	24 A 1400-2210	28	26 A 1400-2210	23	27 A 1400-2210	27	24	22 D 12 0800-2000	26	24 D 12 0800-2000	28	Sat	
Sun	27	25 A 1400-2210	29	27 A 1400-2210	24	28 A 1400-2210	28	25	23 D 12 0800-2000	27	25 D 12 0800-2000	29	Sun	
Mon	28	26 A 1400-2210	30	28 A 1400-2210	25	29	29	26	24 D 12 0800-2000	28	26 D 12 0800-2000	30	Mon	
Tue	29	27 A 1400-2210		29 A 1400-2210	26	30	30	27	25 D 12 0800-2000	29	27 D 12 0800-2000	31	Tue	
Wed	30 A 1400-2210		28 N 12 2000-0800		27		31	28	26 D 12 0800-2000	30	28 D 12 0800-2000		Wed	
Thu			29 N 12 2000-0800		28			29	27 D 0600-1410	29			Thu	
Fri			30 N 12 2000-0800		29			30	28 D 0600-1410	30			Fri	
Sat		31			30				29		31		Sat	
Sun					31				30				Sun	
Mon									31				Mon	

# In Summary & Brief WTS Overview



# Lean-ER™

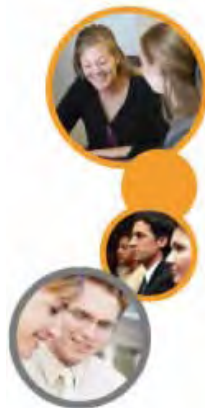
Implementing Lean Employee Resourcing systems that:



## Lean-ER™

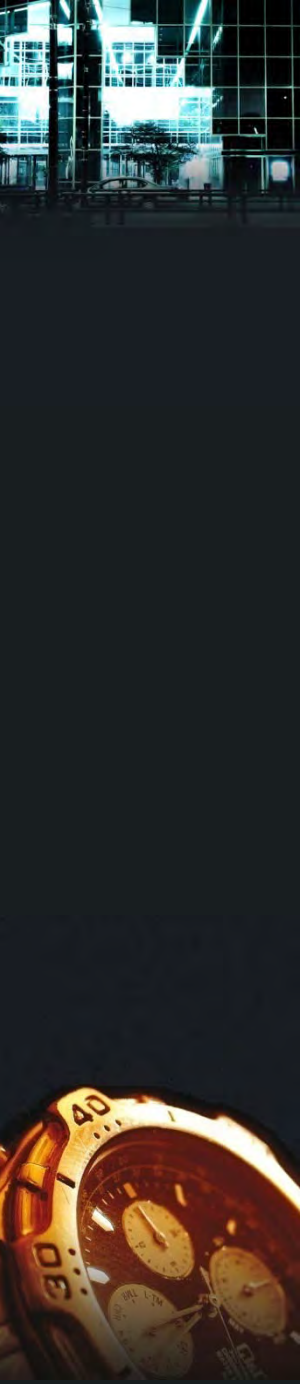
Applies the principles of “Lean” to Employee Resourcing and builds upon the concepts of Annualisation and Demand-led Rostering to drive out the wastes of: -

- Labour underutilisation
- Premium-based overtime payments
- Inefficient temporary or agency labour
- Absence from work
- Poor holiday administration
- Inappropriate shift patterns
- Long hours working
- Reactive labour management

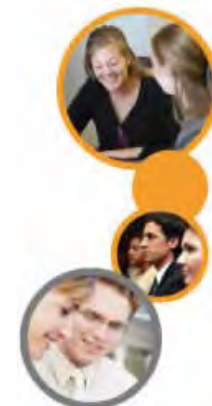
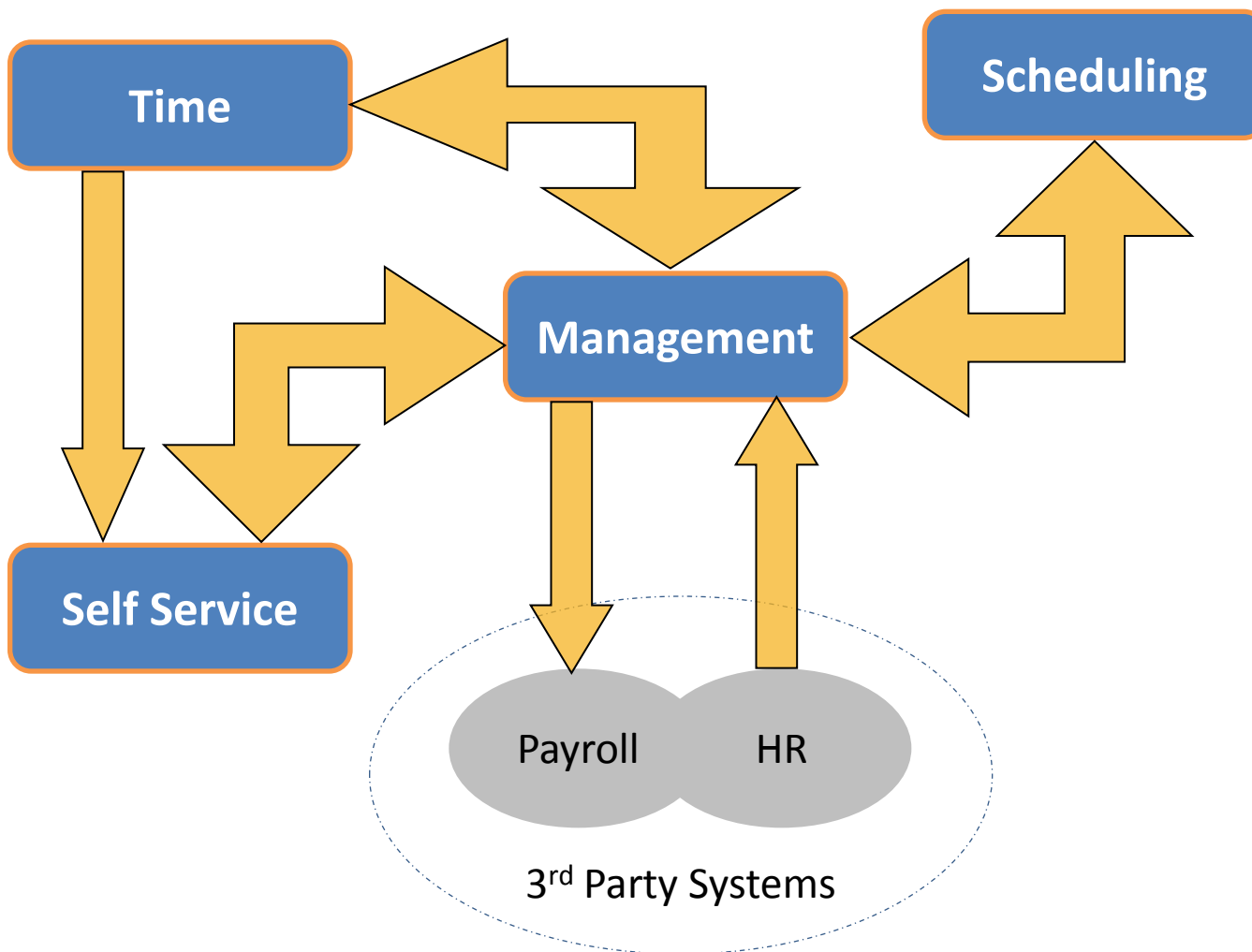


## Lean-ER™ Services

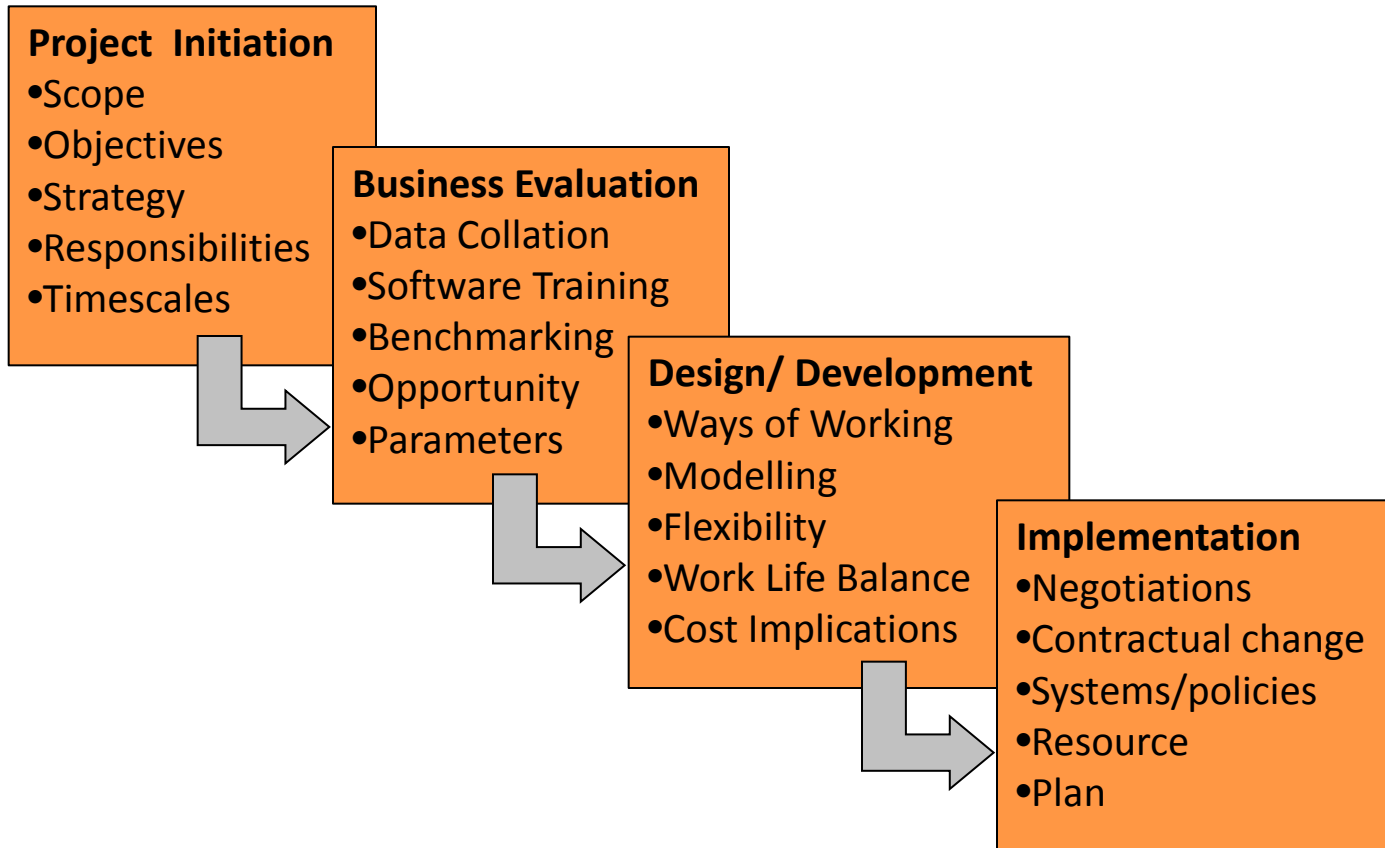
- Working Time Change
- Process Mapping
- Activity Sampling
- Audit and Review
- Demand and Risk Analysis
- Shift pattern design
- IR / HR Strategy and support
- Terms and Conditions
- Operating procedures
- Change Management
- Expert legal advice
- Employee engagement
- Implementation
- Staff Surveys
- Focus Groups
- Project Management
- Bespoke Development
- Systems Integration
- Training
- Software Support - SLA



# Lean-ER™ System Schematic



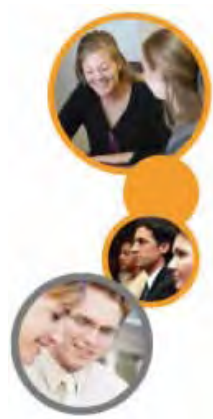
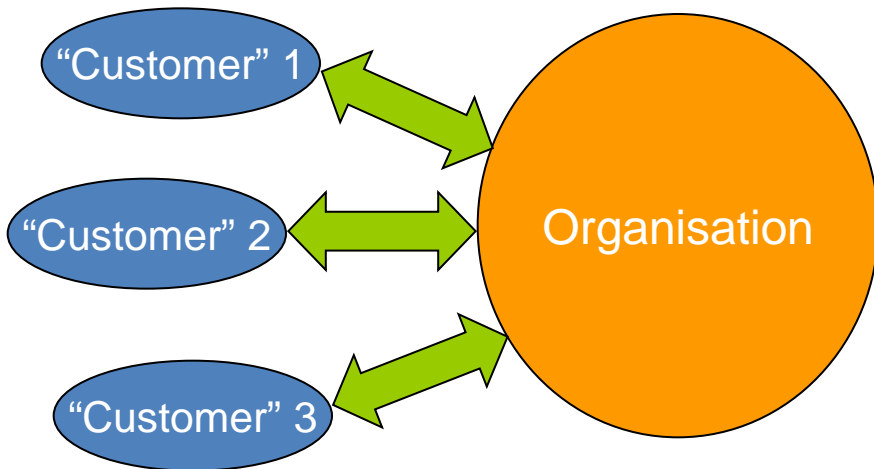
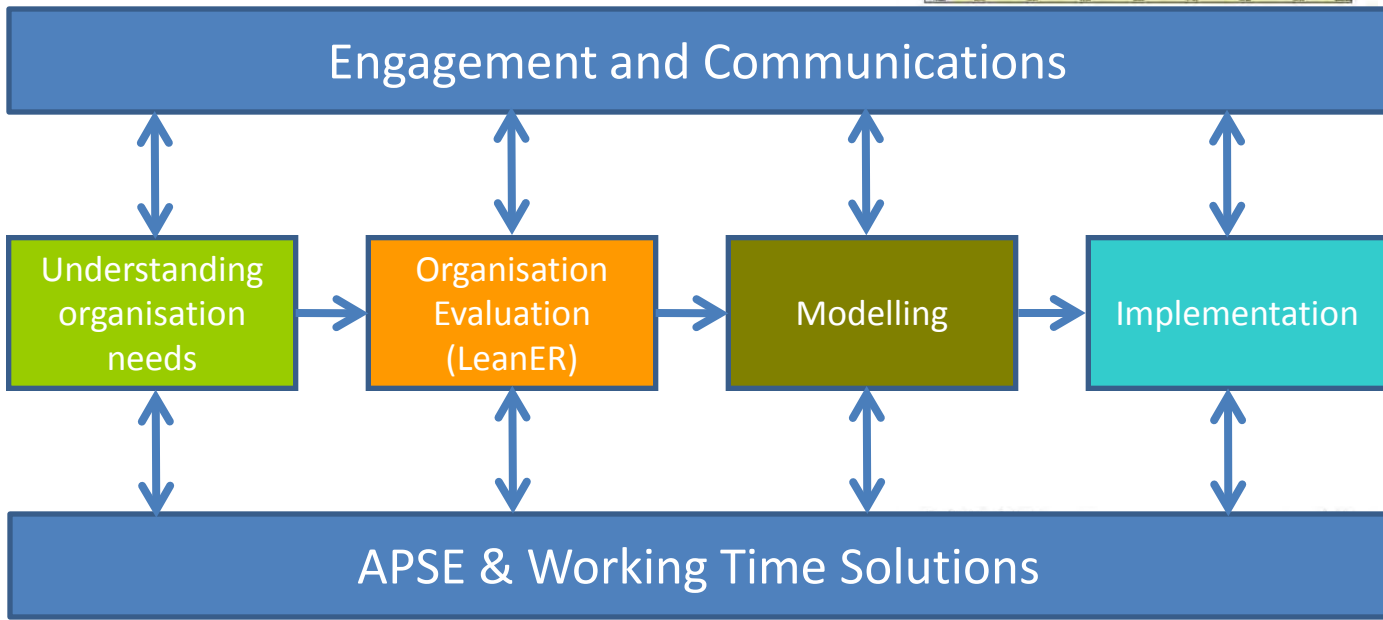
# Project Structure



# Project Structure Cont.

WORK Scheduling™ Core, Rota '8s V1'

Week	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total
1	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00
2	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00
3	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00
4	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00
5	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00
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7	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00
8	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00
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39	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00
40	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00
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51	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00
52	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00-0:00:00	0:00:00



# Further issues / examples / discussion

Open Forum

