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Workload Modelling Advancements

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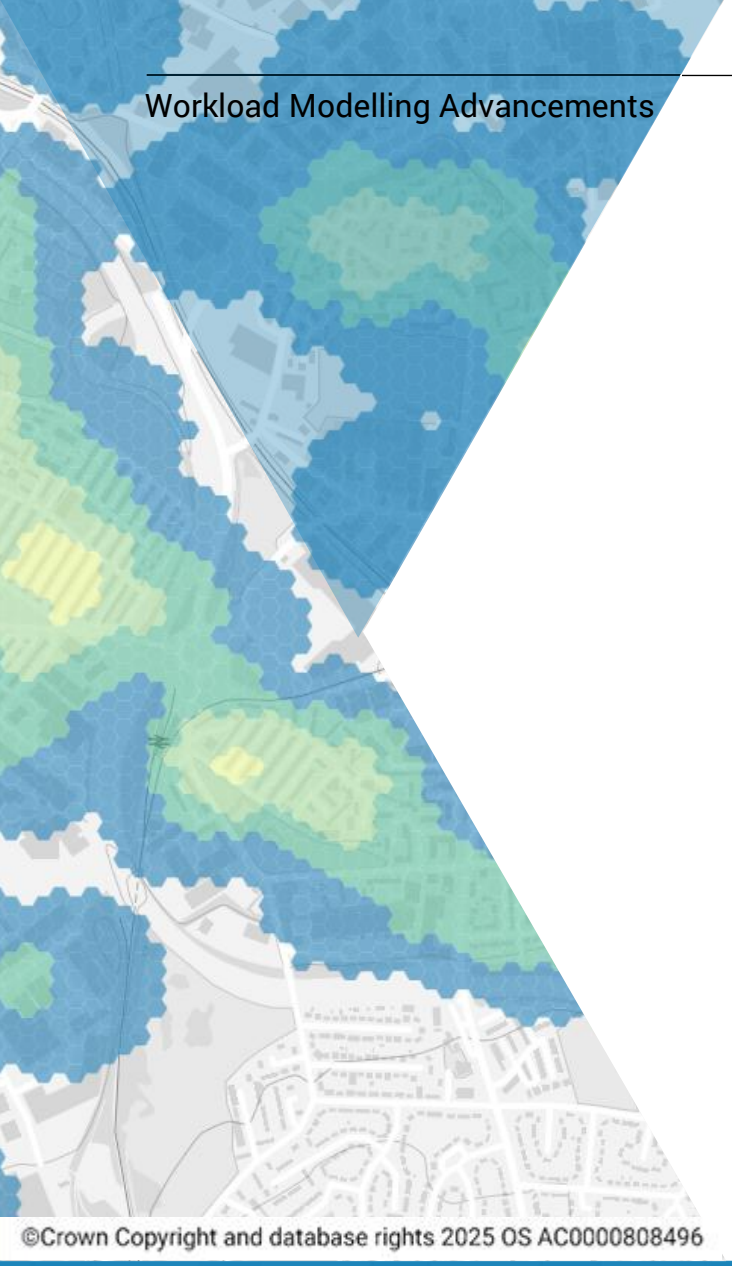
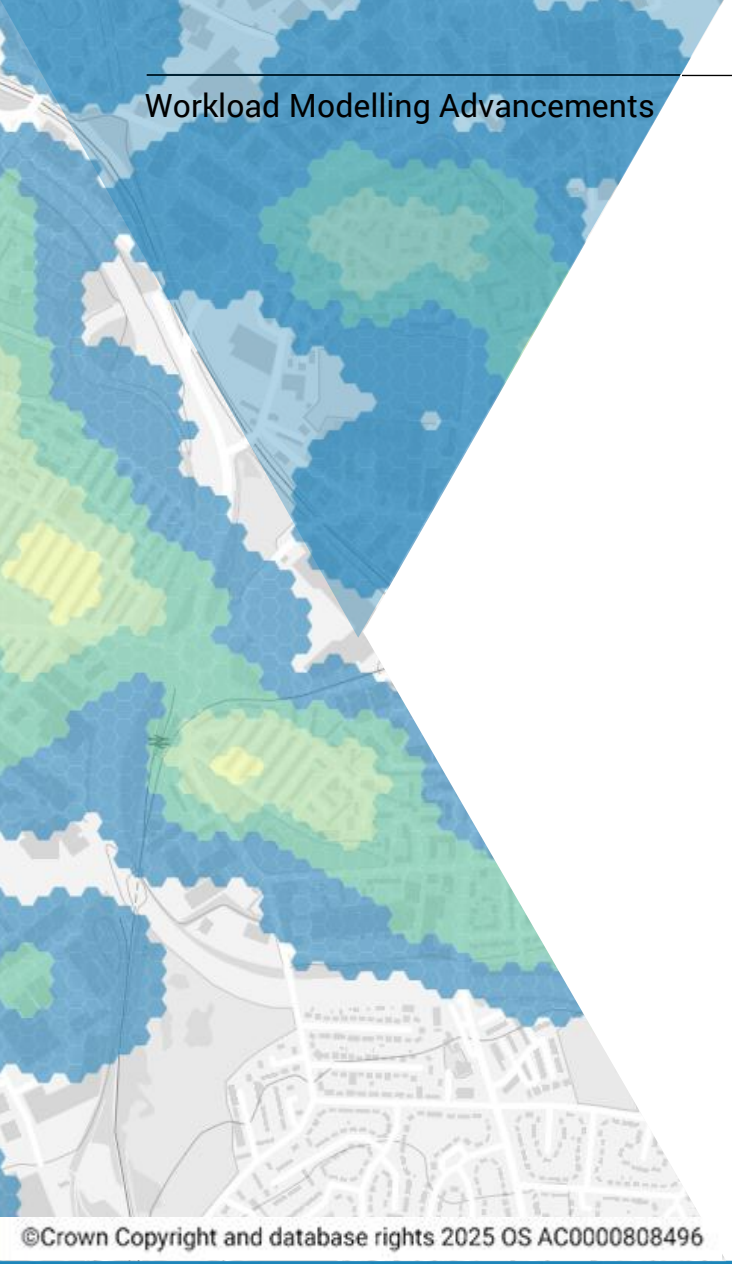


Workload Modeller

- **Introduction to Workload Modeller**
- **Recent new functionality**



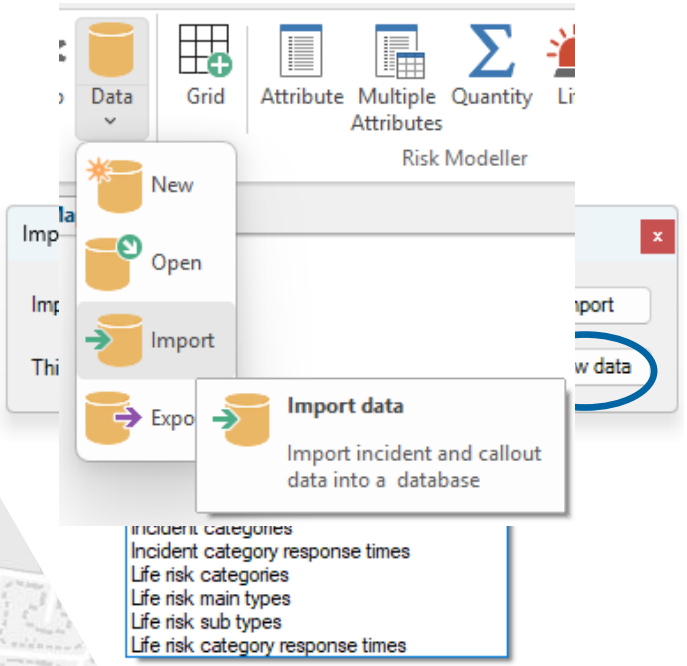
Workload Modeller

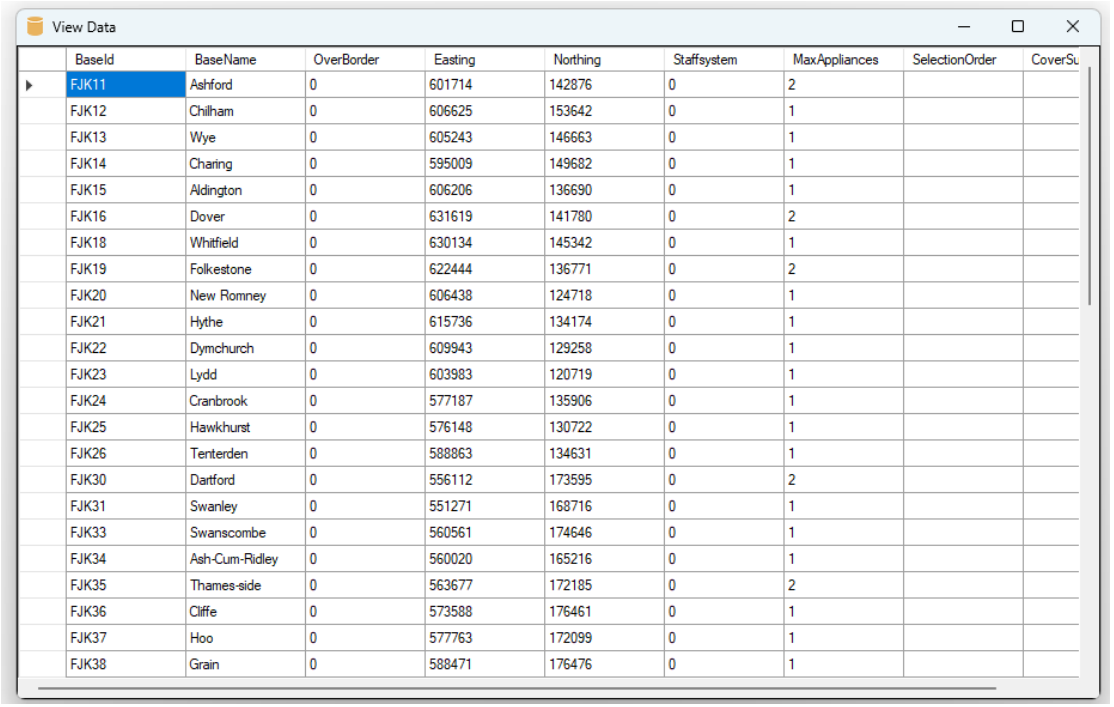
- **Integrated into SIS Desktop**
- **Scenario modelling: stations, appliances, shift patterns**
- **Analyse the impact of changes on performance**
- **Constantly evolving set of tools, driven by customer requests**
- **Many recent developments**
  - Keep up to date with monthly preview builds on the Cadcorp Community

  https://community.cadcorp.com/t/sis-9-1-monthly-preview-builds-october-2025/1870

Setup

- **More datasets can be imported via CSV file, in addition to incident and callout data**

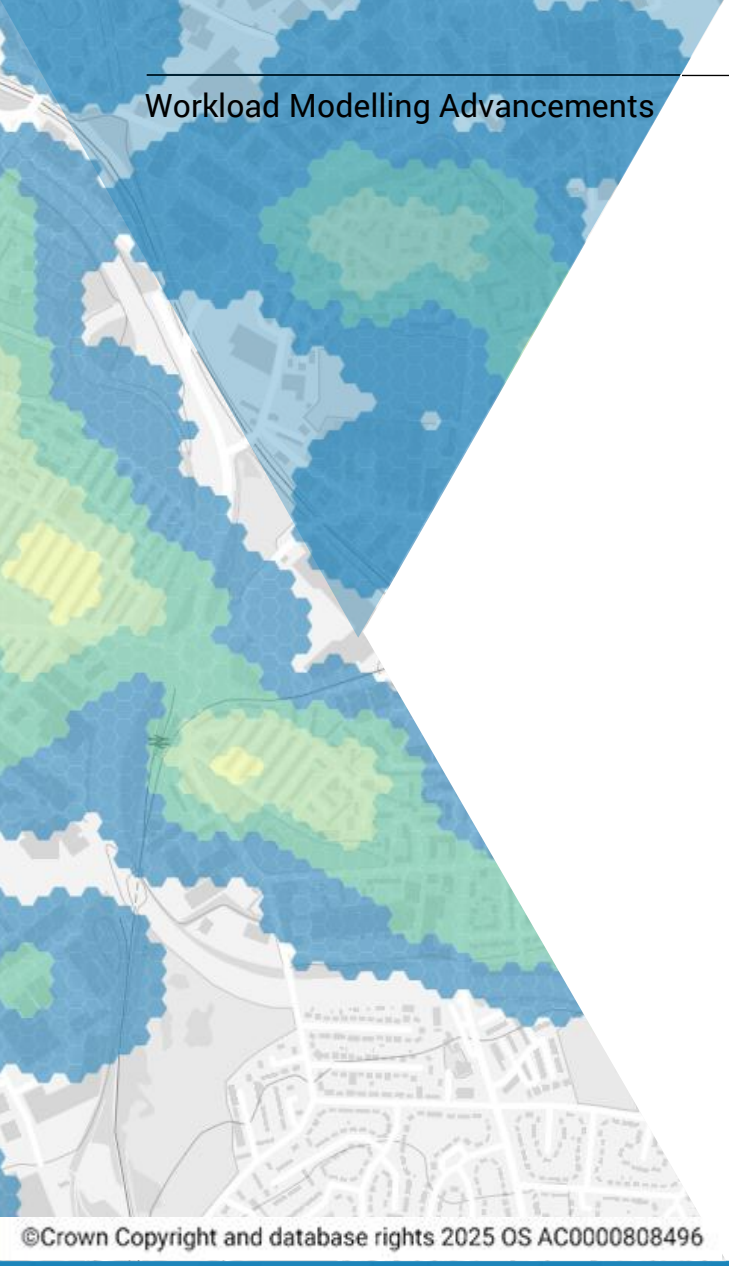



View Data

BaseId	BaseName	OverBorder	Easting	Northing	Staffsystem	MaxAppliances	SelectionOrder	CoverSu
FJK11	Ashford	0	601714	142876	0	2		
FJK12	Chilham	0	606625	153642	0	1		
FJK13	Wye	0	605243	146663	0	1		
FJK14	Charing	0	595009	149682	0	1		
FJK15	Aldington	0	606206	136690	0	1		
FJK16	Dover	0	631619	141780	0	2		
FJK18	Whitfield	0	630134	145342	0	1		
FJK19	Folkestone	0	622444	136771	0	2		
FJK20	New Romney	0	606438	124718	0	1		
FJK21	Hythe	0	615736	134174	0	1		
FJK22	Dymchurch	0	609943	129258	0	1		
FJK23	Lydd	0	603983	120719	0	1		
FJK24	Cranbrook	0	577187	135906	0	1		
FJK25	Hawkhurst	0	576148	130722	0	1		
FJK26	Tenterden	0	588863	134631	0	1		
FJK30	Dartford	0	556112	173595	0	2		
FJK31	Swanley	0	551271	168716	0	1		
FJK33	Swanscombe	0	560561	174646	0	1		
FJK34	Ash-Cum-Ridley	0	560020	165216	0	1		
FJK35	Thames-side	0	563677	172185	0	2		
FJK36	Cliffe	0	573588	176461	0	1		
FJK37	Hoo	0	577763	172099	0	1		
FJK38	Grain	0	588471	176476	0	1		

Modelling

- **Additional information in Turnout Models table (TblTurnoutModels)**

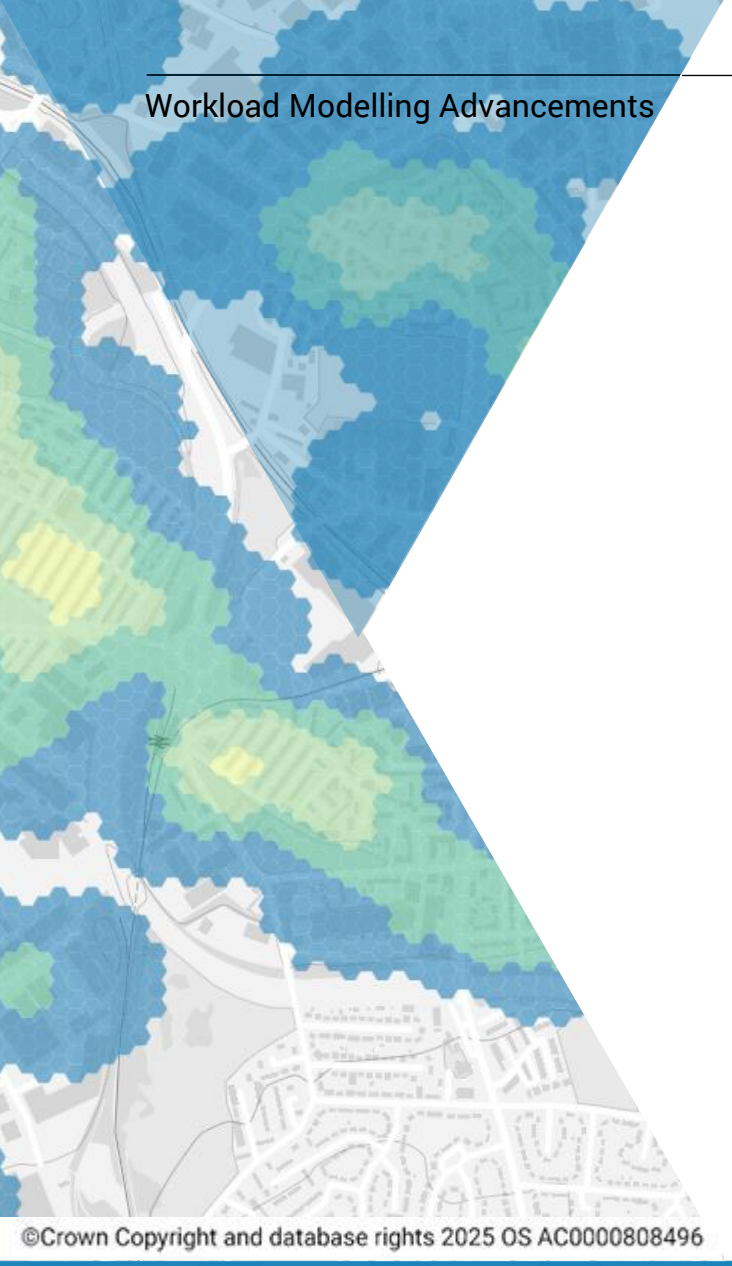


	Paras	Cl
-1	{"ARTable":"tblART_PumpCallout_5yrs","RSTable":"tblR	
-1	{"ARTable":"tblART_PumpCallout_5yrs","RSTable":"tblR	
-1	{"ARTable":"tblART_PumpCallout_5yrs","RSTable":"tblR	
-1	{"ARTable":"tblART_PumpCallout_5yrs","RSTable":"tblR	
-1	{"ARTable":"tblART_PumpCallout_5yrs","RSTable":"tblR	

{"ARTable":"tblART_PumpCallout_5yrs","RSTable":"tblRST_BaseCase_Pumps","SSTable":"tblSST_BaseCase_Stations","Allocation":"NotRecognised","RandomAvailability":false,"RandomNumberSeed":5,"AddReturnTravel":false,"AddReturnFixedPeriod":true,"LimitByVehicleInAttendance":false,"VehicleInAttendanceFactor":2.0,"LimitByIncidentTypeResponse":false,"LimitByLifeRiskResponse":false,"IncludeReactionTime":true,"MOTable":"tblMO_BaseCase_5yrs","FavourStation":true,"EnforceNonReturnPeriod":false,"NonReturnPeriodHours":0.0}

Shifts

- **Number of days in a rolling shift has been increased to 10,000**
  - Can be used to input a full availability calendar for your modelling period
    - Day by day
    - Hour by hour
    - Time periods (morning, daytime, evening, overnight)



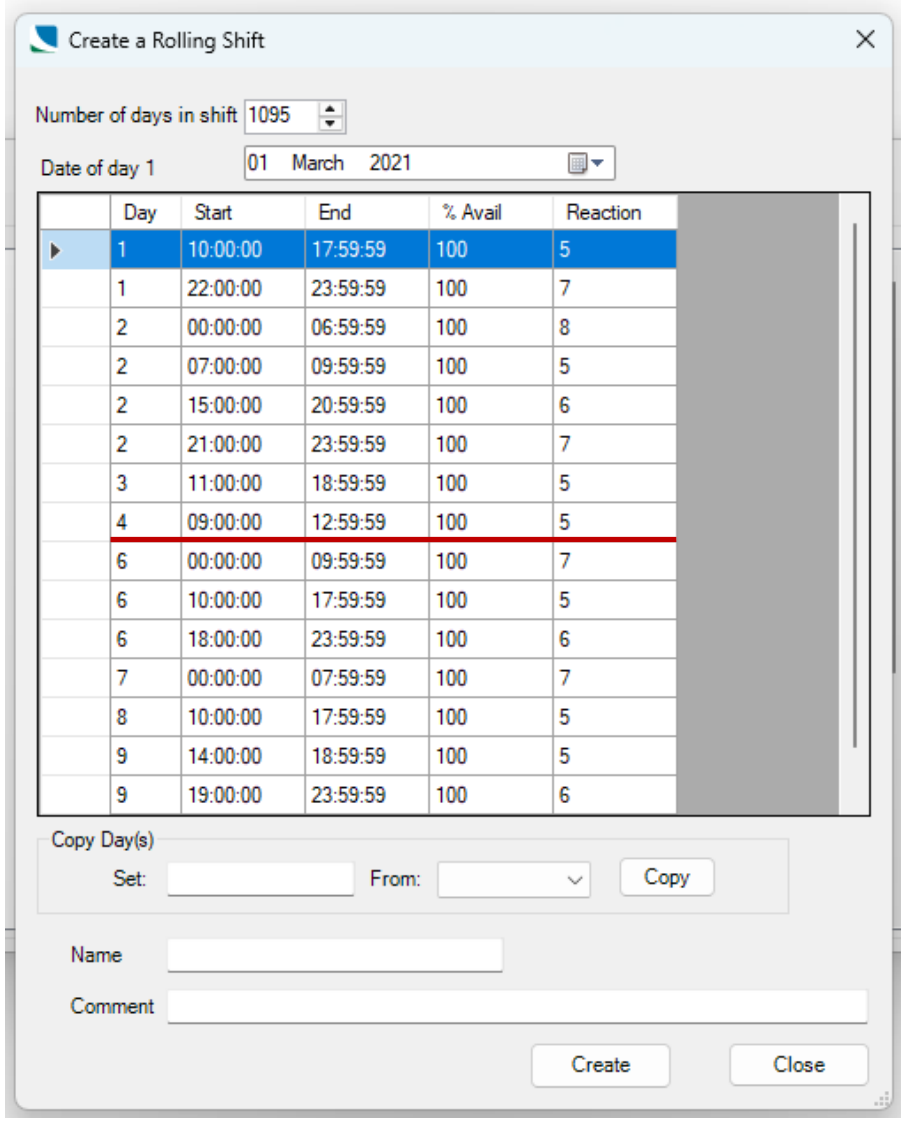
Example: If you had an appliance with availability and turnout times such as this

Date	Hour of day																							
	00:00	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
01/03/2021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5	5	5	5	5	5	5	5	NA	NA	NA	NA	7	7
02/03/2021	8	8	8	8	8	8	8	5	5	5	NA	NA	NA	NA	NA	6	6	6	6	6	6	7	7	7
03/03/2021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5	5	5	5	5	5	5	5	NA	NA	NA	NA	NA
04/03/2021	NA	NA	NA	NA	NA	NA	NA	NA	NA	5	5	5	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
05/03/2021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
06/03/2021	7	7	7	7	7	7	7	7	7	7	5	5	5	5	5	5	5	5	6	6	6	6	6	6
07/03/2021	7	7	7	7	7	7	7	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
08/03/2021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5	5	5	5	5	5	5	5	NA	NA	NA	NA	NA	NA
09/03/2021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5	5	5	5	5	6	6	6	6	6

Periods of unavailability
- **Varying lengths**
- **Entire days**

Periods of availability
- **Different turnout times**
- **No set pattern**

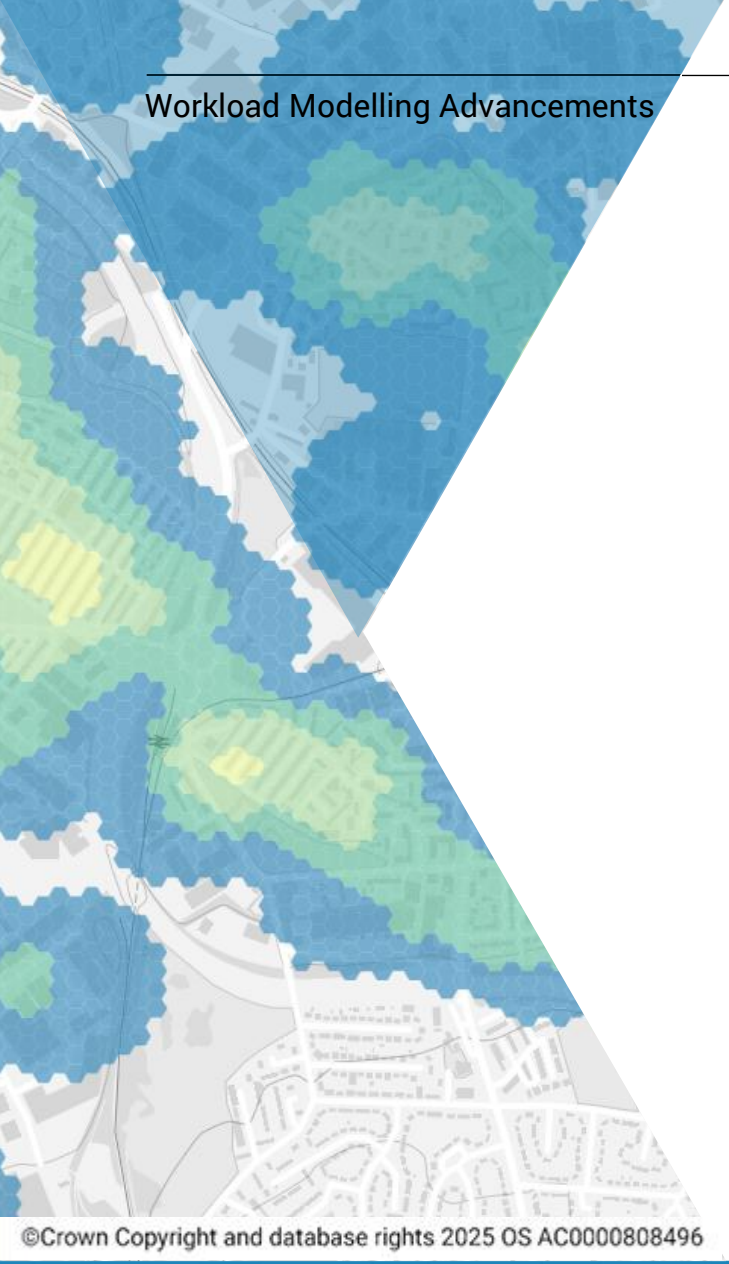
Periods of unavailability are left out

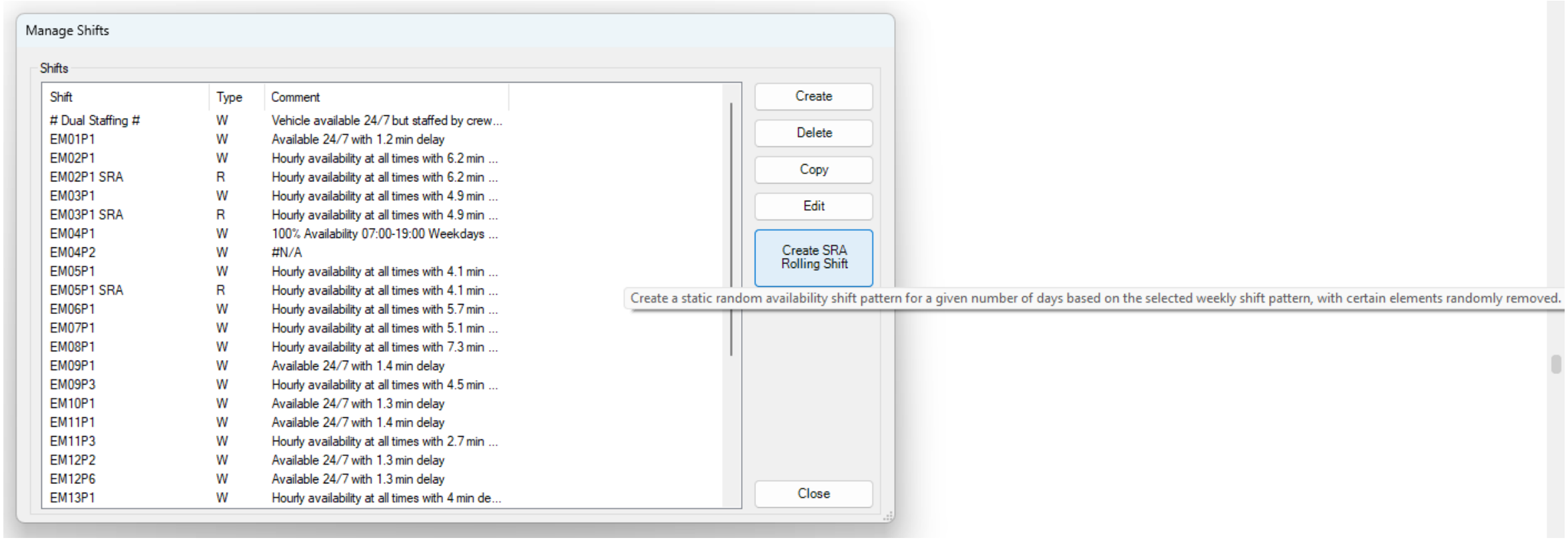


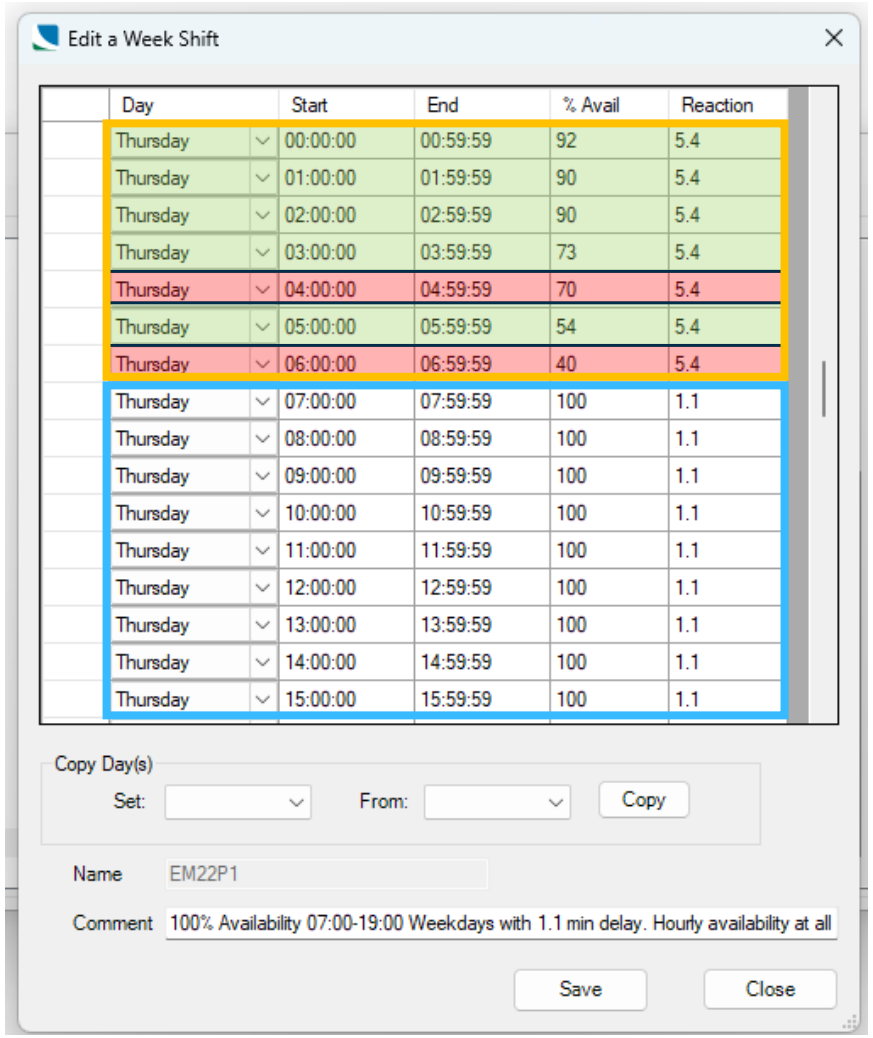
Periods of availability are entered with their turnout times at 100% availability

Shifts

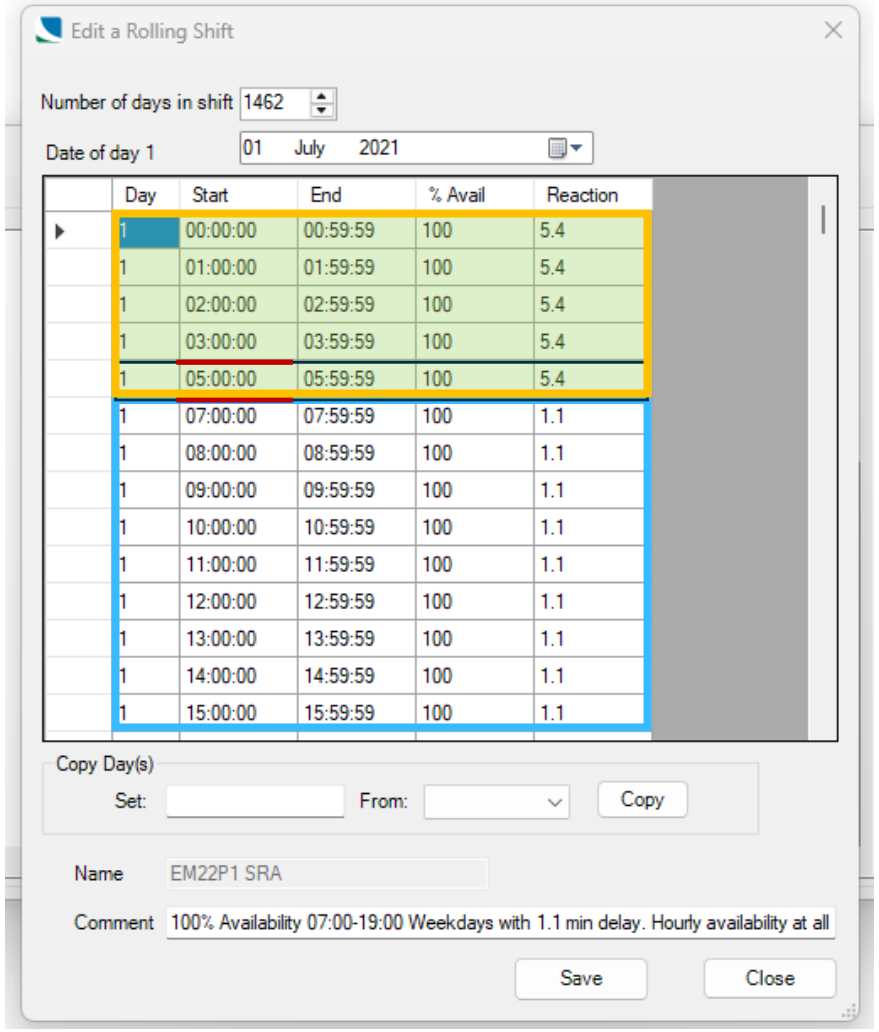
- **Number of days in a rolling shift has been increased to 10,000**
  - Can be used to input a full availability calendar for your modelling period
    - Day by day
    - Hour by hour
    - Time periods (morning, daytime, evening, overnight)
- **Rolling shift can be automatically generated using Random Availability**
  - Not as prescriptive as using your exact historic calendar
  - Weekly shift, broken down into whatever time periods you want
  - Allows some randomisation but with the same availability guaranteed over different models







Create SRA Rolling Shift



All ideas are welcome!

If you have any Workload Modeller functionality requests, suggestions, ideas or questions, please let us know

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