### Managing Mine Site Data – With iNfO



#### Martin Kimber R.F.D. B.E.(UNSW)

Mining Engineer

Software Developer

- Registered Apple Developer
- Claris Partner

#### **Associations:**

- Australasian Institute of Mining and Metallurgy
- Australian Mine Managers Association
- Ventilation Society

#### **Countries**:

#### Oceania:

- Eastern States of Australia (incl Tas)
- New Zealand
- Fiji

Austria

Czech Republic

Denmark

Finland

Germany

Italy

Laos

Mexico

Myanmar

Poland

Russia

Saudi Arabia

Serbia

Thailand

Turkey

Ukraine

UAE

USA



#### **MORE THAN JUST A MANAGEMENT SYSTEM**



# Integrated Network Filing Options



#### How

does your company keep digital data?

#### Do

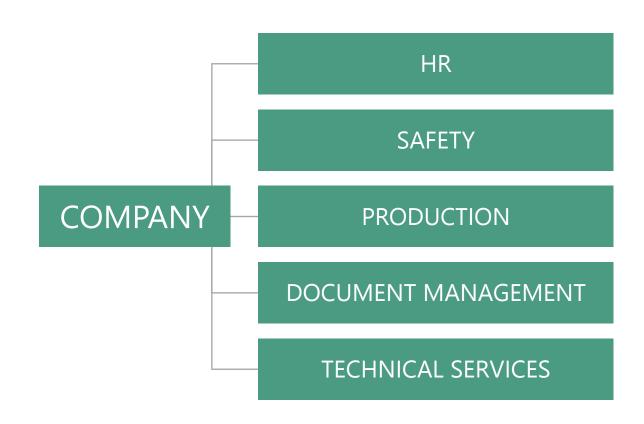
different departments have their own system?

#### What

if they all used the one integrated data system?

#### Would

that save money and improve productivity?



## Issues with Software used in Mining



#### What's wrong with current software?

- 1. It was purchased by someone who doesn't understand what people do or what people need in their role
- 2. No one has actually asked those on site what they need
- 3. The company that sells it are not miners
- 4. The software used is sold into other industries (can one size fit all)



### Prior to Software Purchase



Did anyone ask all the following people what information they need in their roles before decisions were made on purchasing the software they would use?

#### **Company Branches or Employees**

Mine Manger

**OHS** Advisor

Safety and Training

**Tech Services** 

Stores

Receptionist

**Production Managers** 

**Engineering Managers** 

Bathhouse / Lamp Cabin Attendants

**Contract Managers** 

Fire Officer

# More than a Management System

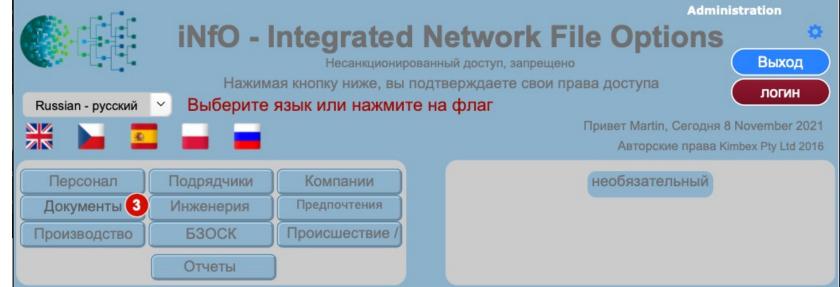












### What is it?



The iNfO system is not just a configurable mine site, people and compliance database.

#### It is much more:

- Document Management (including revision tracking)
- Incident / Injury Reporting
- Work Orders (and Work Requests)
- Tasks (Action) / Meetings / Recruiting



### Who uses it?



- Safety & Training
- Occupational Health & Safety
- Production
- Mine Management / Mech & Elec Engineering
- Stores
- HR
- Anyone / **Everyone** On Site



# Why use it?



- Cost Saving Positive Return on Investment
- Incident Management Software Increases Workplace Safety
- Employee Retention
- Legislation Compliance
- Ease of Use
- Complete Integrated Data Management System



# Simple, Easy & Reliable



All workplaces encounter **DATA** on a daily basis.

Very few actually capture it and deposit it into a storage vessel – a database, where it becomes **INFORMATION**.

Once in a database it can be manipulated into useful information becoming **KNOWLEDGE**.

The retrieval of such knowledge should be simple, easy, and reliable. Once this is achieved, then productivity gains follow.



### Motivation



iNfO
Investment as a core
business strategy **Top Ten**motivations for taking action

From a survey conducted by http://kccsoft.com

- Cost of workers' compensation insurance (59 %)
- "Right thing to do" (51 %)
- "Increases Profitability" (33 %)
- Federal/State safety rules (31 %)
- "Too many accidents" (29 %)
- Employee morale (26 %)
- Productivity (23 %)
- OH&S fines (20 %)
- Employee concerns (5 %)
- Recommendations of outside experts (13 %)





# The return on a software investment is always dependent on employee buy-in. Buy-in is dependent on a few key requirements:

- The software must be easy to learn and simple to use
- It must accommodate existing processes and add additional capabilities
- The software must centralize and simplify mandatory record keeping and reporting
- It must offer obvious improvements in efficiency as well as time savings for managers
- Users must be able to see the benefits for their tasks
- The data must be well organized and obviously contribute to the company's legal defenses

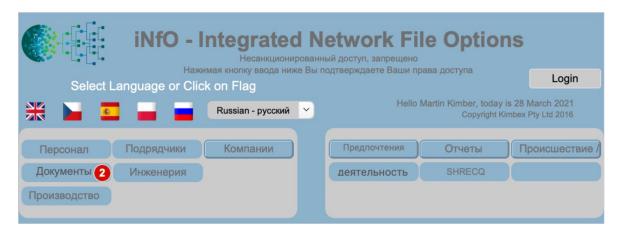


### Easy to understand interface



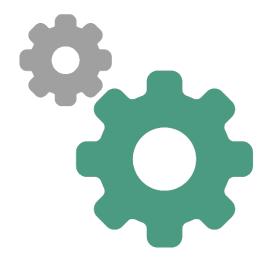
Shows # of documents that need to be reviewed with the option to view in various languages in the same file





# Creating an Identity





#### **Create ID CARDS & LABELS**

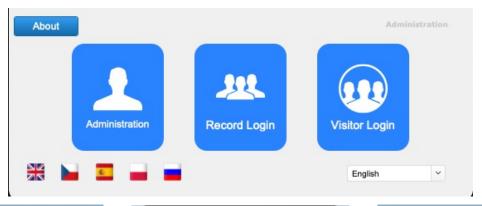
- Staff
- Personnel
- Contractors
- Visitors





### Separate Log-in Screens













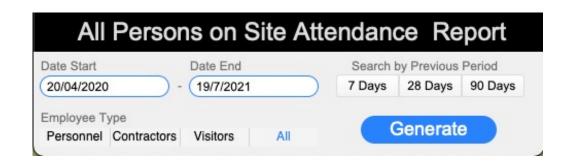
- Both (1 & 2) have independent access to Training / Induction information (Can be used to restrict access to site if not current)
- All Employees can log in with their Employee Number to view their own record
- Licenced Users can log in to View and Edit All Records (within their permission settings)

### User Session Information



#### **Confirm WHO is on-site**





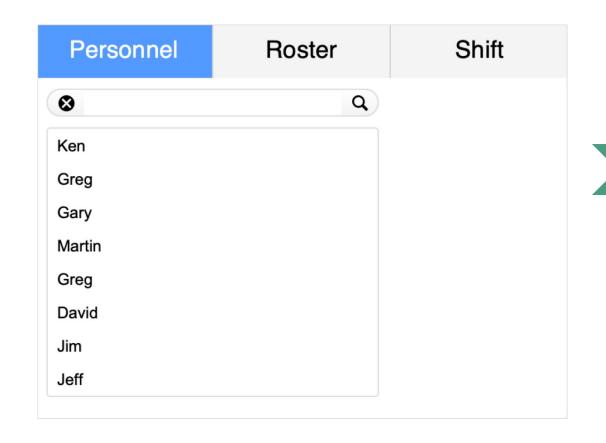
flag_active	id_constant	ID_Session	PersistentID	Timestamp_End	Timestamp_Start	Username	id_user
	1	SES0000000002	BA888FC927441C26	27/09/2019 3:59:16 PM		Austin Vongpanya	
	1	SES0000000003	BA888FC927441C26	27/09/2019 4:00:11 PM	27/09/2019 3:59:35 PM	Austin Vongpanya	
	1	SES0000000004	BA888FC927441C26	27/09/2019 4:09:19 PM	27/09/2019 4:06:26 PM	Austin Vongpanya	
	1	SES0000000005	BA888FC927441C26	27/09/2019 4:16:56 PM	27/09/2019 4:09:27 PM	Austin Vongpanya	USR00000001
1	1	SES0000000006	9D0C0697BC027549		12/10/2019 11:34:49 AM	Martin Kimber	USR000000002

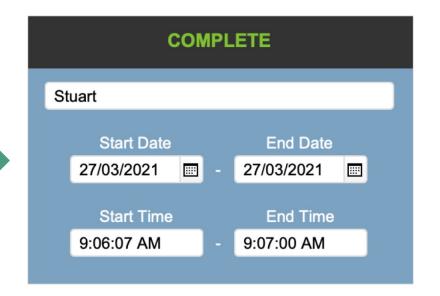


**Export to HR for Employee Reporting / Payroll** 

### Attendance



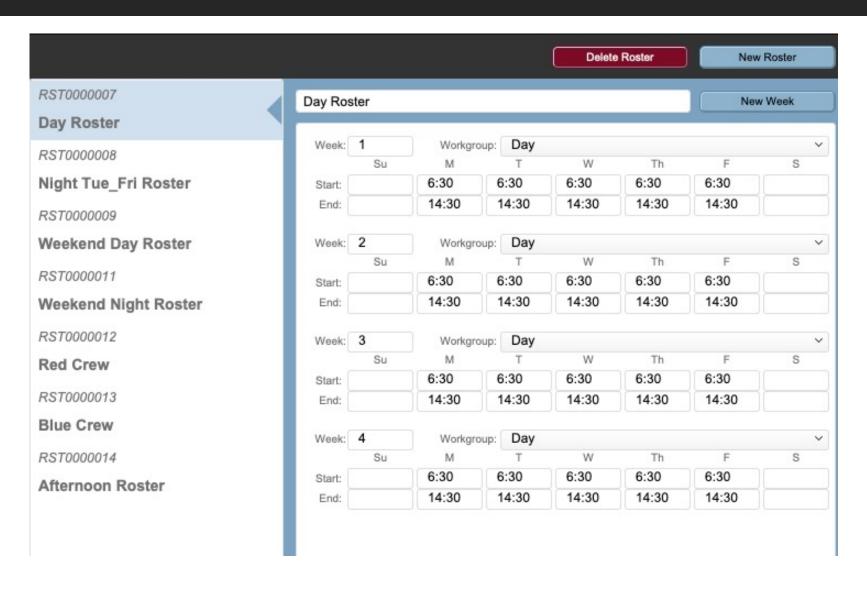




Search by **Personnel, Roster or Shift** and confirm attendance state

#### Rosters

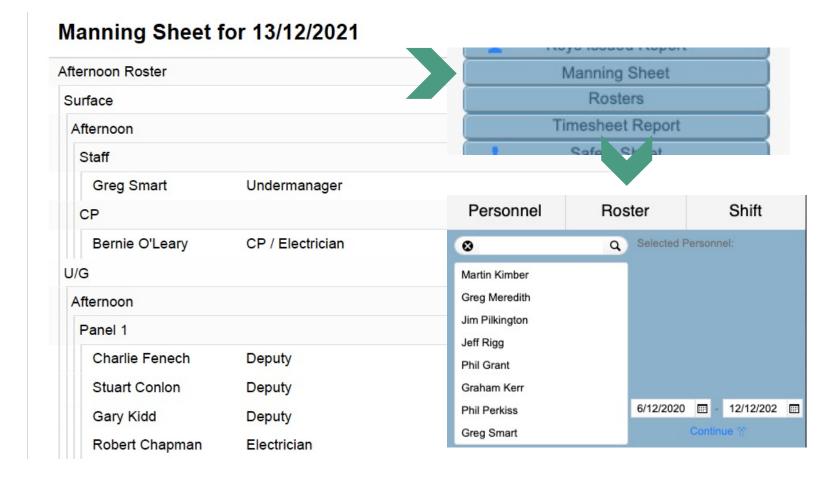




### Manning

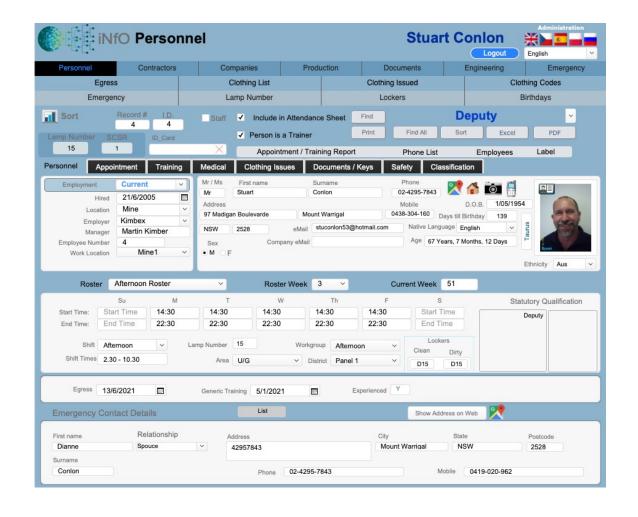


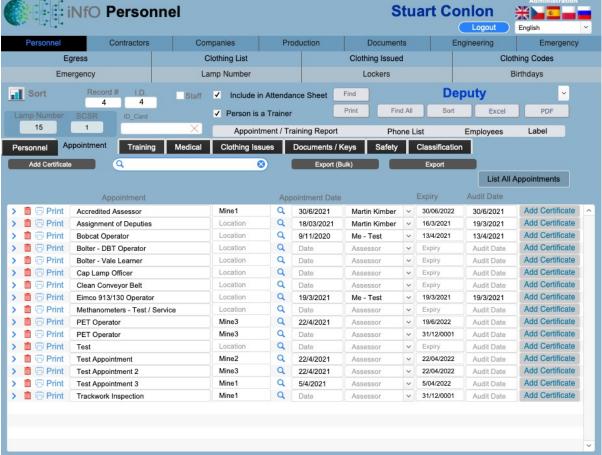
Create a manning sheet at any time based upon who attending the current shift / day (according to the roster). Absenteeism can be recorded





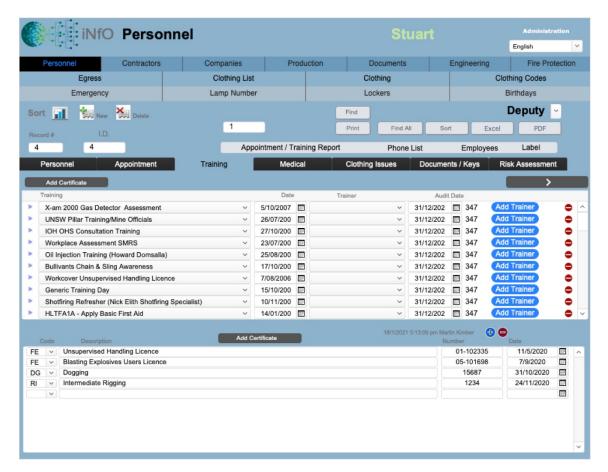


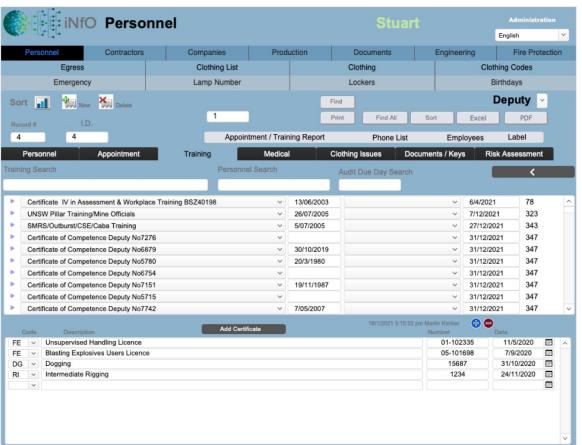




### Training



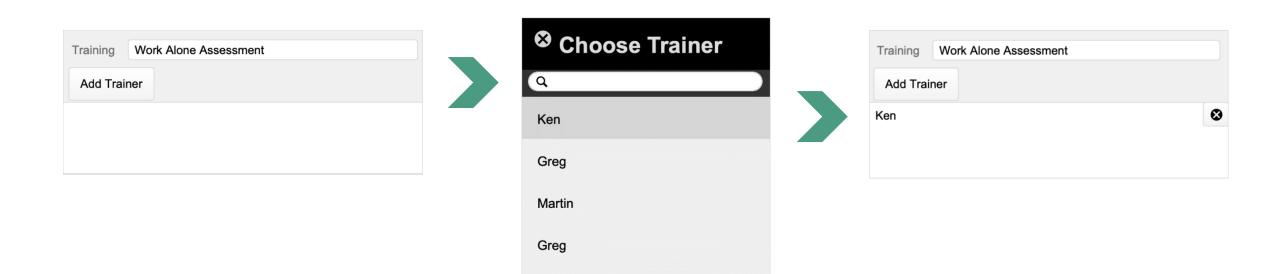






# Appointed Trainers





David

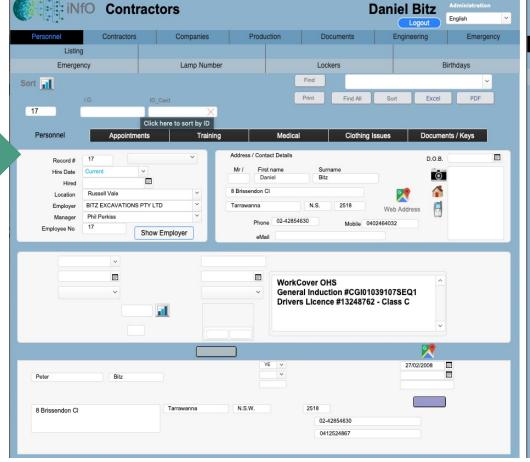
Greg

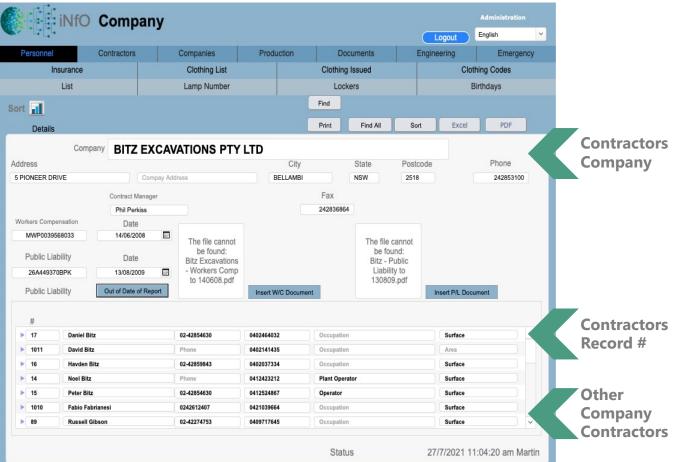
Only **Appointed Trainers** trained in the task can be trainers for the task





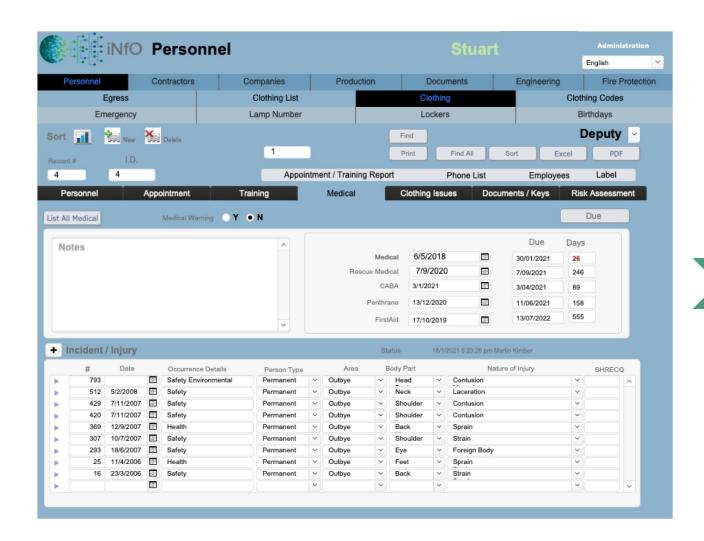


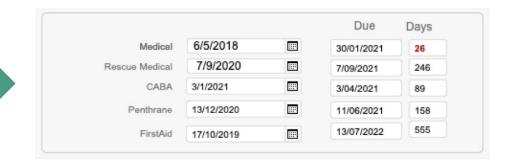




### Medical Records



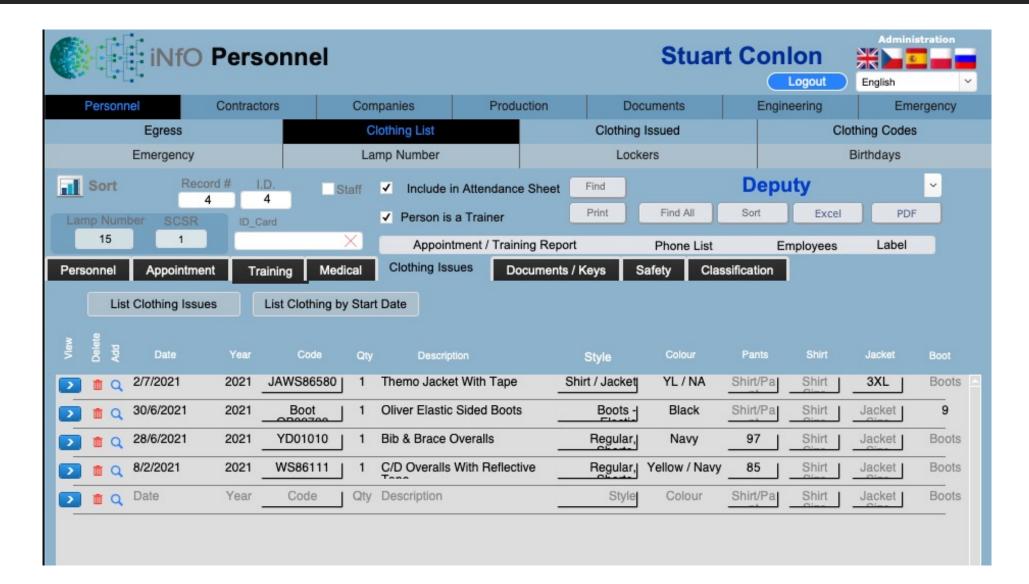




Shows **Days Left** to renew medical exams Default number of days are entered into **preferences** 



# Issuing of Clothing / Uniform



# Clothing Requirements

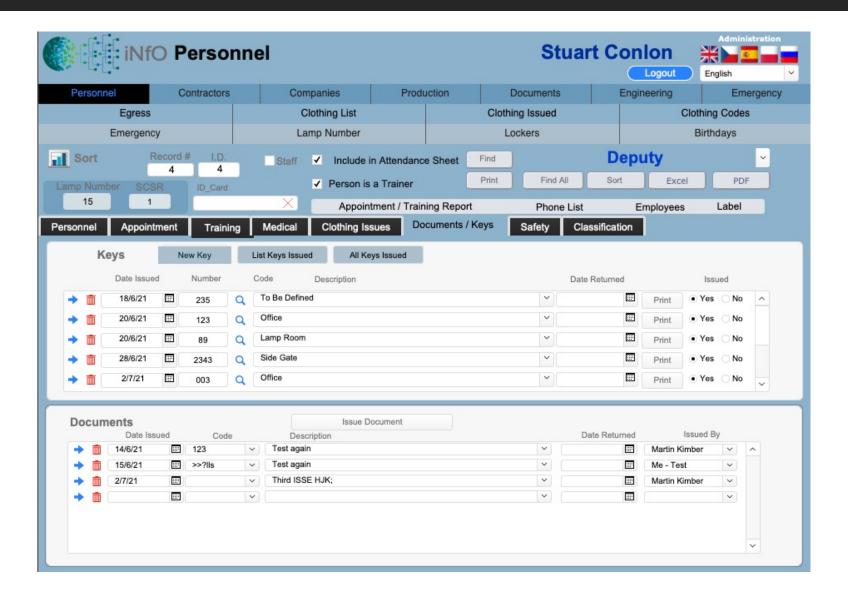


Provides a **Summary** of clothing required for employees, along with who requires an issue

	NfO	Clo	thing								Admi	nistrati	on		
A ALTHUR			3							1	English		~		
Personnel	Co	ntractor	s (	Companies	Produ	uction	Engineering	Ma	aintenance		Fire Protection				
Eg	ress			Clothing List			Clothing Issued			Clothi	thing Codes				
Emerge	ency List			Cap Lamp List			Lockers			Birt	hdays				
Sort By Code Color	Sort By Code Color Size														
Employees	Issued	Qty	Code	Descrip			Style	Boot	Colour	Jacket	Shift	Pants	Year		
Boot OB30734     1	10 (2)														
> Prashant Kumar	31/1/2020	1 E	Boot OB30734	Oliver L	ace Up Boot	is	Boots - Lace Up	10	Black				2020		
> Stuart Foley	5/7/2021	1 E	3oot OB30734	Oliver L	Oliver Lace Up Boots Boots - Lace Up				Black				2021		
Boot OB30734     9	(1)														
> David Moore	8/09/2020	1 E	Boot OB30734	Oliver L	ace Up Boot	ts	Boots - Lace Up	9	Black				2020		
Boot OB30780     1	10 (2)														
> Ken Hardy	30/10/2020	1 E	Boot OB30780	Oliver Ela	stic Sided Bo	oots	Boots - Elastic	10	Black				2020		
> Martin Kimber	30/6/2021	1 E	Boot OB30780	0 Oliver Elastic Sided Boots 10 Black									2021		
Boot OB30780     9	(3)														

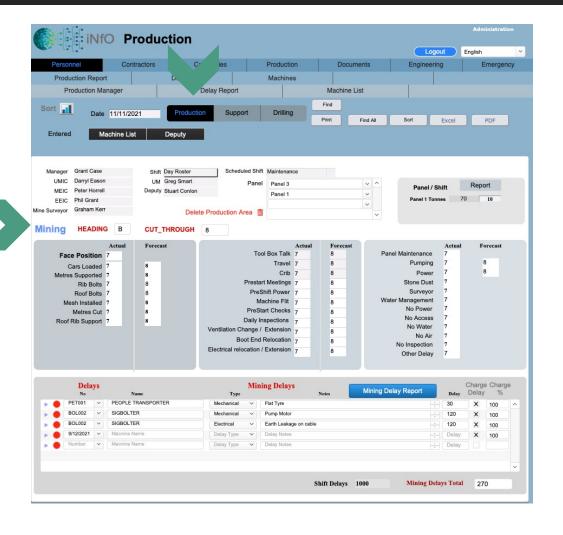
# intergrated Network filing Options

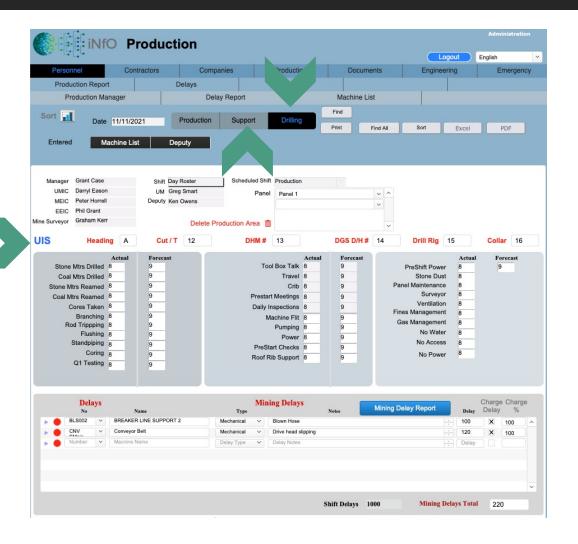
## Issuing of Documents / Keys





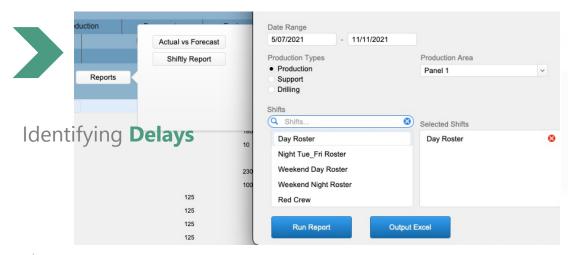






# Production Reporting





			Mining Delay Report				
Delays in Panel 1							
Machine Number	М	achine Name					
9/12/2021							
The state of the s		Notes		Duration	Charge	%	Amount
11/11/	21	•			Υ	100%	0
			Totals by Machine:		1		0
BLS001	В	REAKER LINE SUPPORT 1			200	e22	70
Electrical		Notes		Duration	Charge	%	Amount
10/11/	21	Earth Leakage Fault		60	Υ	100%	10
		5	Totals by Machine:	60	1		10
BOL002	SI	GBOLTER					
Electrical		Notes		Duration	Charge	%	Amount
11/11/	21	Earth Leakage on cable		120	Υ	100%	200
Mechanical		Notes		Duration	Charge	%	Amount
11/11/	21	Pump Motor		120	Υ	100%	20
63-			Totals by Machine:	240	2		220
PET001	Pi	EOPLE TRANSPORTER					
Mechanical		Notes		Duration	Charge	%	Amount
10/11/	21	Flat Tyre		100	Υ	100%	16.67
11/11/	21	Flat Tyre	·	30	Υ	100%	5
			Totals by Machine:	130	2		21.67

#### Production Shiftly Report



Miners:

DASH3 CONTINIOUS MINER-CM10

Shuttle Cars:

Joy 15SC - 32, Joy 15SC - 31

Heading: B C/T: 8

Metres Developed	Actual	Forecast
Face Position	8	
Metres Supported	8	10
Rib Bolts	8	10
Mesh Installed	8	10
Metres Cut	8	10
Roof Rib Support	8	10
Tonnage	Tonnage	Dollars
Production Area Tonnes	80	\$3,600.00
Cars Loaded	Actual	Forecast
Cars Loaded	8	10

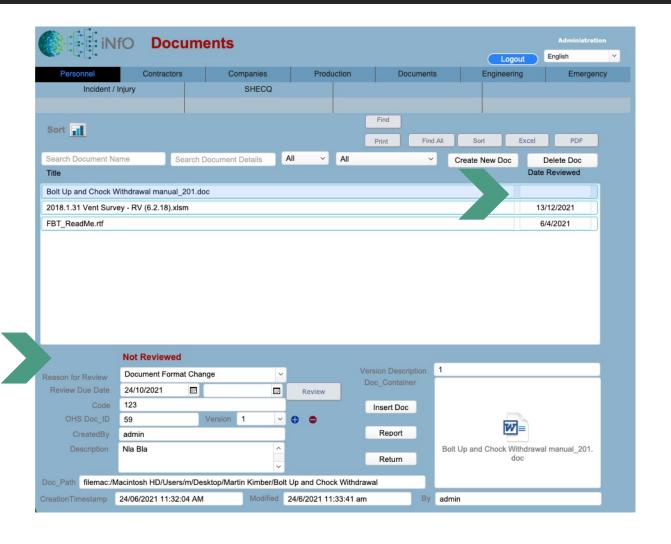




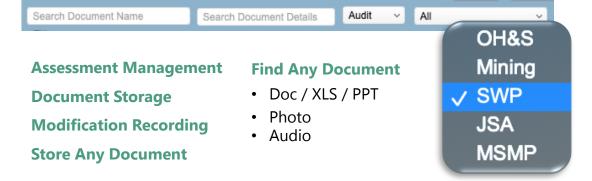
	iNfO											English	~
Personn	el	Contractor	s	Co	mpanies	Pro	duction	Document	s	E	Engineering	Fire Prote	ection
Pro	duction Repo	rt			Delays			Machines					
	duction Manag				Delay Repor	t							
Start	5/07/2021		Q	7 Days	28 Days	90 Days	Reports					Print	
End Date	11/11/2021			. Buyo	20 Buyo	oo bayo	rtoporto	Shift Delays	Metres S	Supported	Mining Delays Tot	al Deputy	
23/8/2021				Tonnes	by Date:	1200							
Day					s by Shift			1170					
3000070	Panel 1					1200			125		1100	Greg Johnston	
5/10/2021				Tonnes	by Date:	1801.5							
Afternoon	Roster			Tonnes	s by Shift	1801.5		205					
0	Panel 2					1500							
L	ongwall 1					301.5							
0/11/2021				Tonnes	by Date:	40							
Day Roste	r			Tonnes	s by Shift	: 40		299					
	Panel 1					10					260	David Moore	
	Panel 2					30					260	David Moore	
1/11/2021					by Date:			1212					
Day Roste				Tonnes	s by Shift			1000			870		
	Panel 3					45					870		
	Panel 1	onnes as at				<b>70</b> 3156.5					070		







#### Multiple **Search** criteria

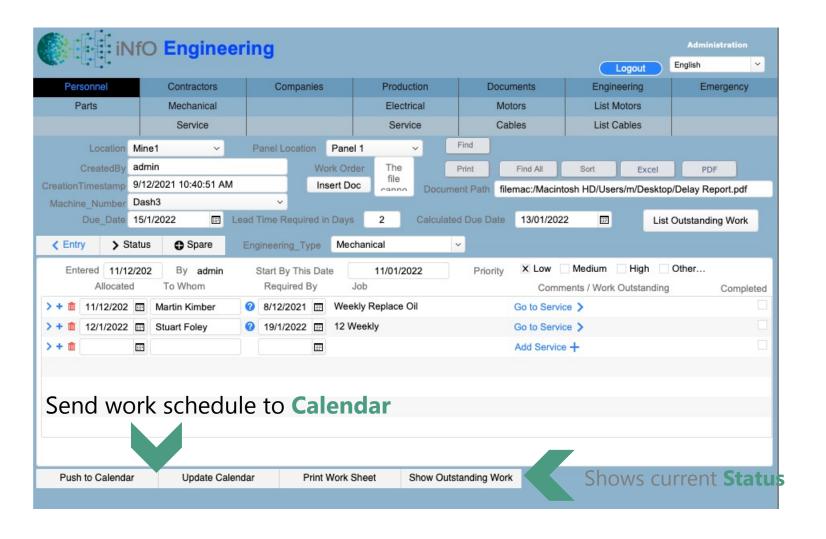


	Not Reviewed				
Reason for Review	Annual / Time Based			~	
Review Due Date	1/11/2020	20/1/202	21		Review
Code	Module 3				
OHS Doc_ID	45	Version	1	~	• •
CreatedBy	admin				
Description	Basic Aviation Risk Sta				
				~	

Manage document **Revisions** 







**Track** maintenance records

**Create** and issue work orders

**Show** outstanding work

**Print** work sheet

Add task to Calendar



# intergrated Network filing Options

# Define Scheduled Service on Equipment

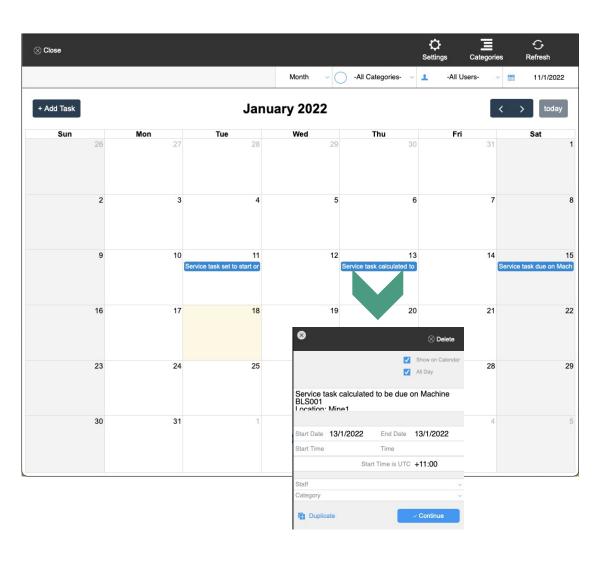
<b>M</b> IFE IN	IfO Service					A	dministration
A Alfalar					Logou	t Englis	sh 🗸
Personnel	Contractors	Companies	Production	Documents	Engineering	1	Emergency
Parts	Mechanical		Electrical	Motors	List Motors		
	Service		Service	Cables	List Cables		
<b>✓</b> Back	to Engineering			Location	on_Name Mine	\1	
							_
Machine Number	BLS003	<u> </u>		Panel_	Location Pane	el 2	
Machine Model	BLS 3	Machi	ine Type BREAKER L	INE			
Machine Name	BREAKER LINE SUPPOR	Т3	Mechanical Elec	ctrical Mining			
Service Free	Weekly		26 Weekly 52 Weekly	Add Parts for Frequency			
BF FG XR6 4.  Joy Stick  BF FG XR6 4.  Joy Stick	0L Operator Control S			Delete Servi	ce Record 🛅	•	

**Define** Which parts are needed for regular services

**Automate** parts selection for equipment services being chosen when creation the work order







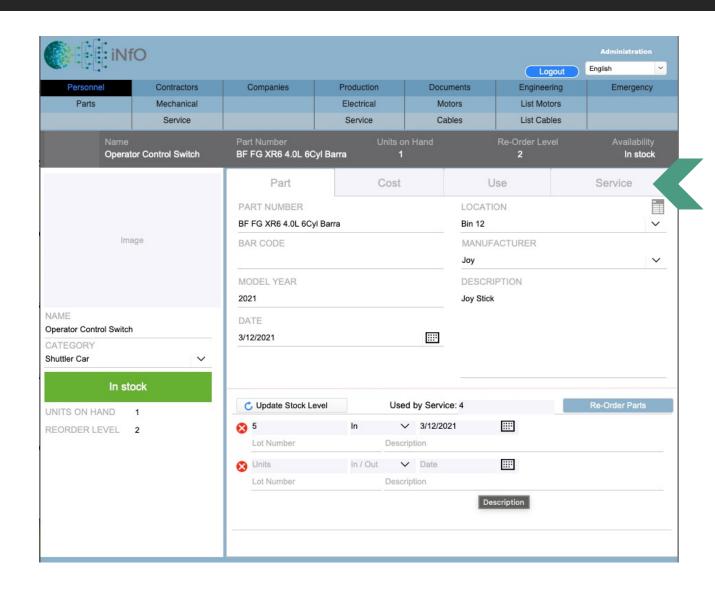
View or Filter Category / User

Show Work by month, week or day

Tasks with the Category 'Service' are
automatically added to the calendar and colour
coded to differentiate from other tasks for easy
reference

### Parts / Stock Availability





Easily Edit Parts used in Engineering
Update Stock Levels when used or consumed
Show warning of low Stock Automated Re-Order
Cost Stock from vendor
List Parts show alternative suppliers / prices

List Parts snow alternative suppliers / prices

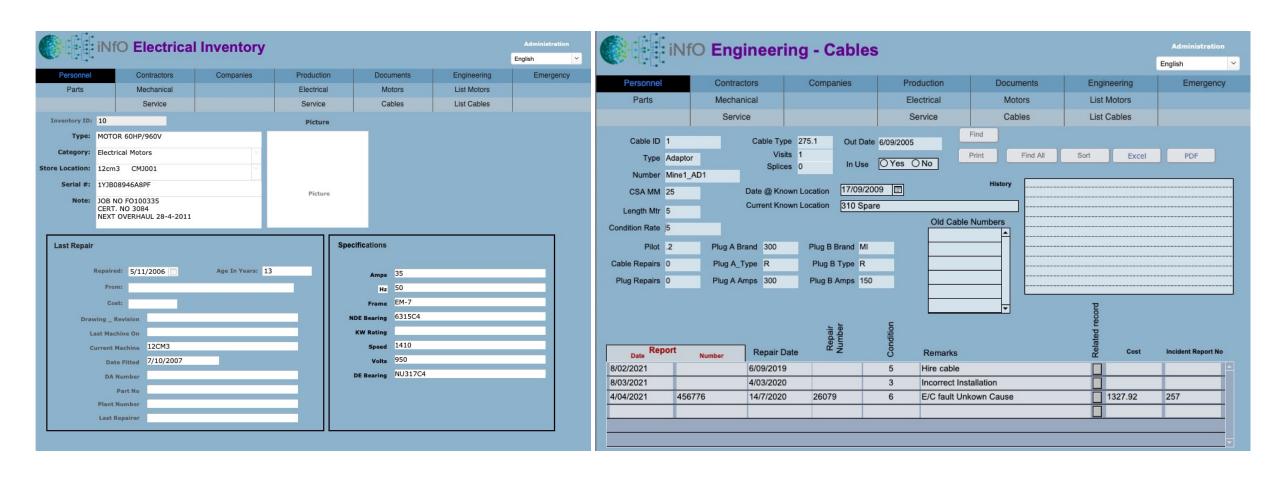
List Machines that use the parts stocked

Stock Levels printout of stock levels (stocktake)

Barcode stock for easy recording / tracking



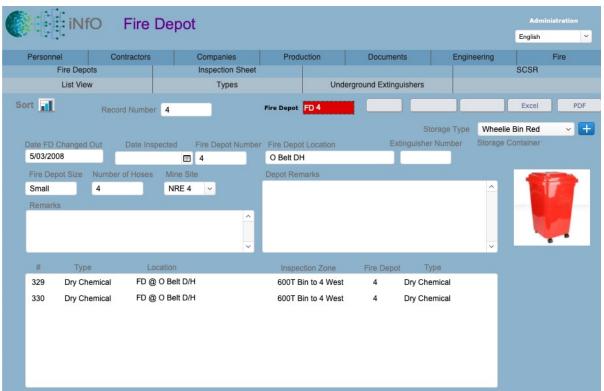




### Fire Equipment & Depot



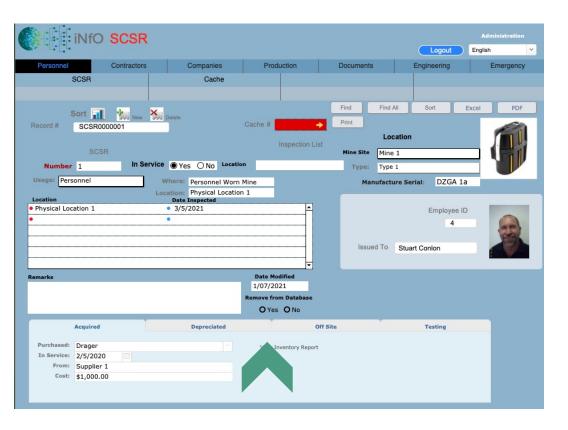




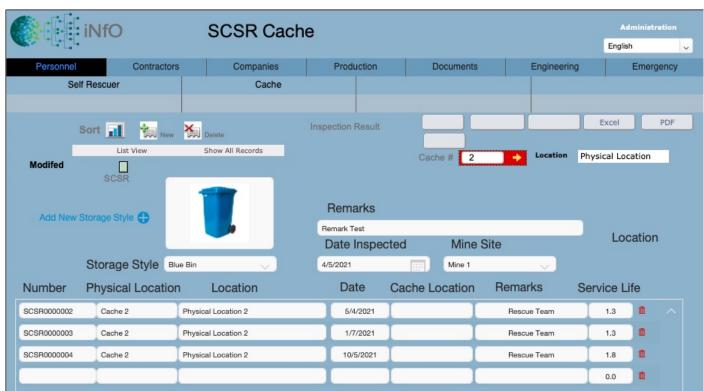
Also displays **Depreciation Reports** & **Location** 







Also displays **Depreciation Reports** & **Location** 





# WHS Reporting

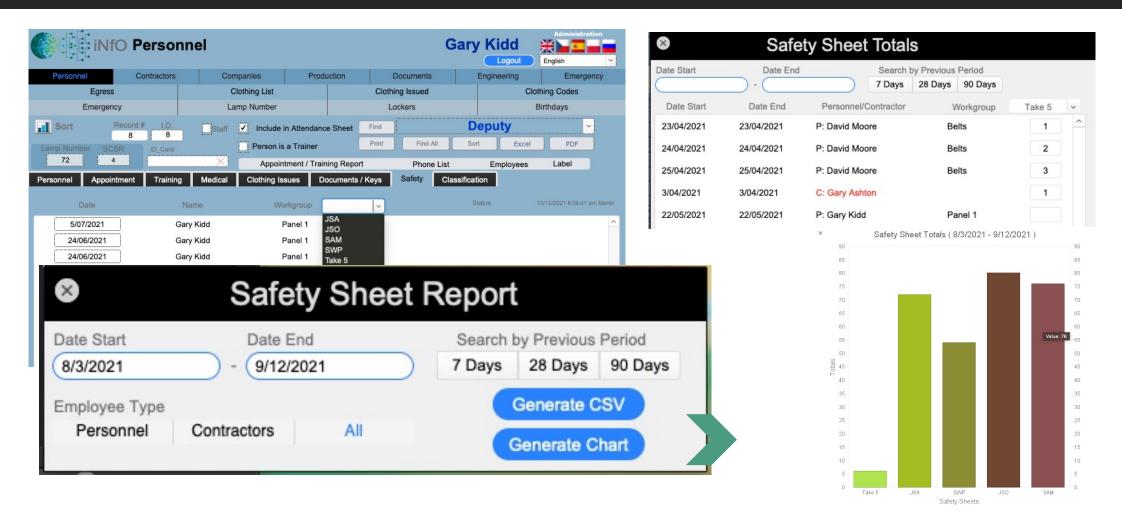


Occurence De	etails								
Safety	Health	Environment	Community	Quality					
238	27	16	2	50					
Area									
Extraction	Development	Maintenance	Outbye	Admin	Surface				
38	165	9	88	2	29				
Actual or Pot	ential Conseq	uences							
First Aid Inju	Near Miss	Medical Treat	Lost Time Inju	Diseaase/Illne	Hazard	Property Dan	Plant Damage	Stop Product	Env
0	0	0	0	0	0	0	0	0	
Body Part									
Abdomen	Ankle	Arms	Back	Chest	Ear	Eye	Face	Feet	Fing
0	3	21	23	2	1	10	11	9	
Nature of Inju	ury								
Amputation	Asphyxia	Burns	Concussion	Contusion	Dislocation	Foreign Body Fracture		Internal Injur	Lace
0	0	0	0	60	0	11	2	2	
Agency of Inj	ury								
Chemicals	Shuttle Car	Drivehead	Substances	House Keepir	Wildlife	Conveyor Bel	Diesel Loco	Hand Tools	Cor
1	21	5	6	25	0	20	11	26	
Mechanism o	f Injury								
Slip_Trip_Fall	Electricity	Cold	Fall from Hei	Dust	Vehicular	Strike Agains	Heat	Noise	Нус
0	6	0	2	5	8	44	7	1	
Treatment									
Ice Packs	CPR/EAR	Ambulance	Bandage	Penthrane	Eye Wash				
59	0	13	30	0	8				
Outcome									
Return to Wo	Medical Cent	Home	Suitable Dutie	Hospital	Other				
257	16	5	4	20	16				

Select all that apply:									
Occurence Details All									
Safety Health Environmental Community Quality									
Shift All Day Day W/E Afternoon	Night Tue-Fri	Ved-Sat Γue-Fri Γues -Sat	Overtime All Yes No						
Shift Date									
	· 4/3/2021								
Injury Date	· 4/3/2021		Generate CSV						

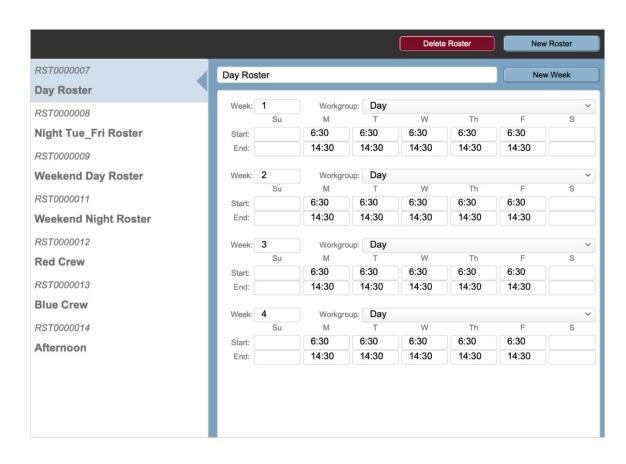




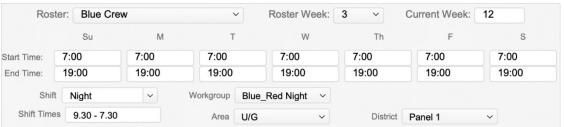


### Creating & Modifying Rosters





Create **Manning Sheet** listing only those who are on that particular roster / week



# Track Employee History



**Enter Find Mode** 

4/02/2021

10:56:08 AM

Stuart

Personnel Records::Employee Status has changed from Resigned to Current in table Personnel Records.

4/02/2021

10:58:59 AM

Stuart

Personnel Records::Employee Status has changed from Current to Resigned in table Personnel Records.

4/02/2021

11:09:01 AM

Stuart

Personnel Records::Date of Hire has changed from 20/06/2005 to 21/06/2005 in table Personnel Records.

### Enter & Compute Data



Year	Month	Reading Location	Velocity	Quantity	Methane	DBT	WBT	DBT Kelvin	WBT Kelvin	Specific Volume	Specific Volume	Average Barome
007	Aug	RV Track Road	1.3	10.296	0	15	13	288	286	1.483	1.69	101.33
007	Aug	RV Belt Road	0.2	2.052	0	15	13	288	286	1.483	1.69	101.33
007	Aug	RV Adit 20	0.2	3		15	13	288	286	1.483	1.69	101.33
007	Aug	#1 Shaft Roadway	11.2	58.8		15	14	288	287	1.584	1.69	101.33
007	Aug	#1 Shaft Belt O/B	3.1	18.445		15	14	288	287	1.584	1.69	101.33
007	Aug	#1 Shaft Belt I/B	1.6	9.504		15	14	288	287	1.584	1.69	101.33
007	Aug	#1 Shaft Track O/B	2.1	8.82		15	14	288	287	1.584	1.69	101.33
007	Aug	#1 Shaft Track I/B	2.0	12.54		15	14	288	287	1.584	1.69	101.33
007	Aug	#3 Shaft North	3.4	39.27		14	12	287	285	1.389	1.584	101.33
007	Aug	#3 Shaft South	1.3	12.22		14	12	287	285	1.389	1.584	101.33
007	Aug	#3 Shaft East	4.0	37.72		14	12	287	285	1.389	1.584	101.33
007	Aug	#4 Shaft South	4.6	46.368		14	12	287	285	1.389	1.584	101.33
007	Aug	#4 Shaft East	2.1	32.256		14	12	287	285	1.389	1.584	101.33
007	Aug	#4 Shaft West	2.0	37.44		14	12	287	285	1.389	1.584	101.33
007	Aug	#5 Shaft North	3.2	49.312		21	19	294	292	2.178	2.466	101.33
007	Aua	#5 Shaft South	32	32		21	19	294	292	2 178	2 466	101.33

### **Enter Ventilation Recording Compute Water Balance**

Total Intake Moisture 16463.4092

Total Exhaust Moisture 22014.2585

Comparison of Fan QTY to Vent Reading

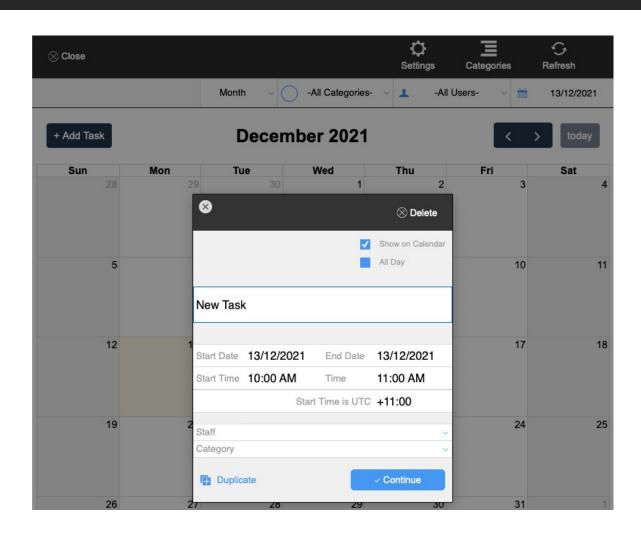
**Summary Quantity** 

233.162

Fan Indicates **235** 

### Built in Calendar / Tasks



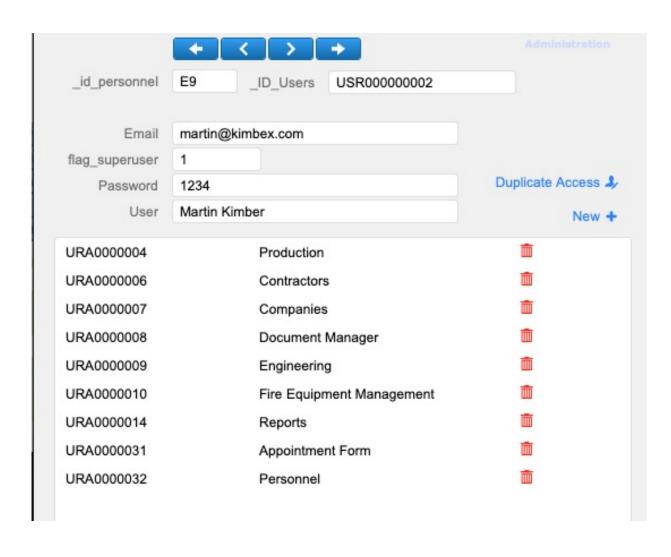


# Inbuilt Calendar – Tasks (individual and group)

Can record details of employee periods of absence – holiday / sick. Can also be used for planning purposes or meetings, along with assigning tasks for groups or individuals





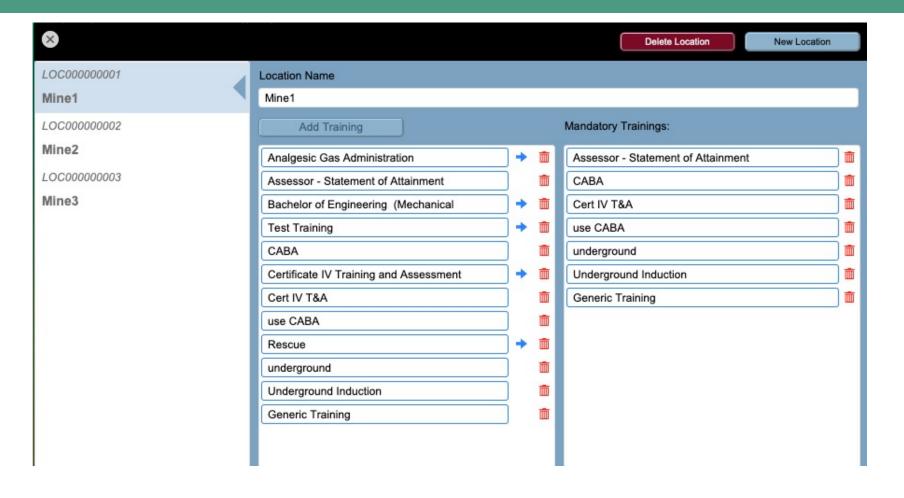


Access (privilege) set creation or modification is simplified



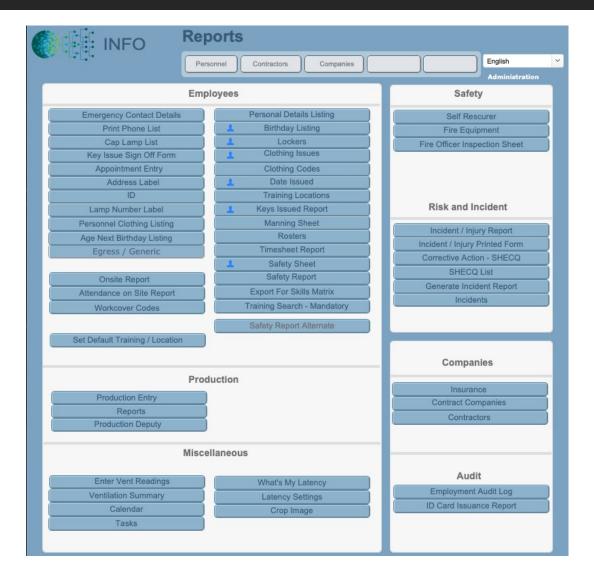


### Simplified mandatory training / induction requirements for each site

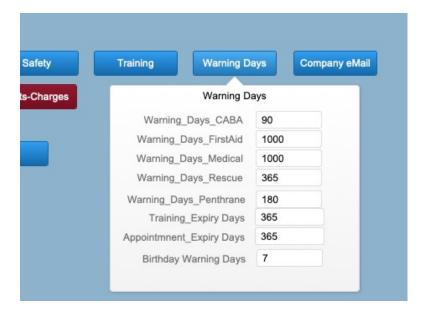




# Quick Access to Common Reports & Defaults







### Further Information



### iNfO

has been in development for over 16 years, we recognize that there is always room for improvements and additions

is continually being expanded to include many features not visible at this stage

can be customized quickly to suit your needs and are happy to discuss your requirements

#### **Additional Screens:**

- Risk Assessment Form (optional) to facilitate Risk Assessment
- Incident / Injury Reporting SHRECQ
- Birthdays
- Emergency Contacts / Employee Phone List
- Cap Lamp Listing
- Employee Qualifications (Appointments / Training)
- Address Labels
- Employee Listing
- Contract Employees Listing
- Bathhouse Lockers / Baskets

### Further reporting



### **Human Resource**

- Breakdown of workforce by the following criteria:
- Men / Women
- Language(s) spoke at home
- Ethnicity (e.g. Aboriginal/Torres Strait Islander)
- Age groups
- Persons approaching retirement age
- Who is currently on site Personnel, Contractors and Visitors?
- What hours those persons currently on site have worked
- Breakdown numbers of Employees / Contractors / Visitors who have attended on site between specified dates
- Reporting on how many people have been onsite during the month/quarter (department of industry report)

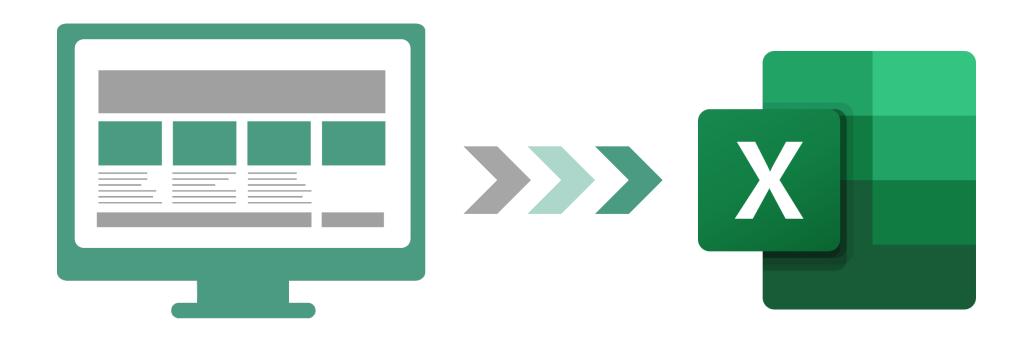
### **Contracting Company**

 Contractor Company Insurance details (Workers Compensation and Public liability policy number and renewal date) – report the validity of their policies

### Exporting Data to Excel



### **Export Training / Skills Matrix to MS Excel for Distribution**



# Compatibility





Requires Network / Internet Access across Windows & Mac OS as well as iOS & Android devices

### Optional Modules



Meetings

**Tasks** 

**Work Requests** 

Recruiter – Example

**Risk Assessment** 

Details recorded as part of the recruitment process may be restricted by file permission to specific staff (e.g. HR). Includes the recording of the following recruitment processes:

- Advertise position
- Correspondence (emails, phone calls, notes)
- Form letter templates
- Select candidates
- Conduct interviews (multiple)
- Prepare employment contracts (standard documents created by merging database content)
- Medical checks
- Workers' compensation check
- Start Work, might be delayed before all steps are completed and management sign documents

A one on one presentation is available at a convenient time to demonstrate the full features and confirm its ease of use

Visit <u>www.info-software.net</u>

