**PC Underground Forecaster**

**Proposed Upgrades**

**Database Changes**

* Update to Office 2007
* All Tables

Wherever a station is required allow for absolute or relative values: START+/-,END+/-.

* CASE Table

CAL\_ID Default calendar to be used by a unit if there is no entry in the rates table for a

section or unit.

NUM\_WEEKS

PERIOD

QUALITY\_DB

Add RESULTS Name of a results table with quality (calculated from QUALITY\_DB) to be

added to db.

Add TIMESTAMP Date when forecast last run for this case.

Notes: a ‘RESULTS’ table in the current db is always generated with no quality (timing only).

If NUM\_WEEKS & PERIOD are left blank: calculate quality from current timing using

QUALITY\_DB and write into table specified in RESULTS.

If QUALITY\_DB & RESULTS are left blank: do timing only (overwrite ‘RESULTS’ table).

* CALENDAR

CAL\_NO

MON\_DATE

MON thru SUN Three records per week one for each shift (Midnight, Day, Afternoon) in a day, can include an ‘H” for holiday.

COMMENTS

Notes: this will ensure that any timing will never be more than a shift late. There will also be a program for easily generating calendars.

* GEOMETRY

SECT

TYPE Confined to the following:

for LWs LWA,B,C or D plus \*

for mains CMM plus \*

for development CMD plus \*

for advance CMA plus \*

for retreat CMR plus \*

where \* is any number of alphanumeric characters (user defined).

INIT\_STN

X\_COORD

Y\_COORD

AZIMUTH

LENGTH

WIDTH

RECOV

LINEAR\_FACTOR

* SEQUENCE Table

SECT

START

END

UNIT Starting unit: if blank use unit from primary dependency.

Add UNIT2 Can be blank (used for supersections: see unit handling in exceptions below).

BEGIN

REF1

STN1

D1

REF2

STN2

D2

DIRTY\_FLAG

ORDERING

COMMENT new memo field

Note: for D1 and D2 allow ability to specify as ‘Calendar’ days as well as scheduled days. Also allow the ability to specify as days.x where x is 0 thru 3 for no. of shifts.

* RATES Table

UNIT CM1 thru CMx, or LW1 thru LWx.

Add SECT From GEOMETRY, allow wildcards.

TYPE From GEOMETRY, allow wildcards.

FT\_P\_MS

TNS\_PMS

TNS\_FT

~~MS\_P\_DAY~~

Add AVAILABILITY % of scheduled shift actually spent mining.

Add CAL\_NO Calendar to be used for unit (if blank then default calendar would be used).

Add START\_DATE Unit cannot be used before this date (can be blank for start of forecast).

Add END\_DATE Unit cannot be used after this date (can be blank for end of forecast).

COAL

MAX\_TPMS

MAX\_FTPMS

Note: the same unit can appear with any combination of section and/or type.

* REF\_EXCEPTIONS Table

~~ID~~

UNIT CM1 thru CMx, or LW1 thru LWx.

Add SECT From GEOMETRY, allow wildcards.

Add TYPE From GEOMETRY, allow wildcards.

~~REF\_ID~~

Add REF\_UNIT CM1 thru CMx, or LW1 thru LWx.

Add REF\_SECT From GEOMETRY, allow wildcards.

Add REF\_TYPE From GEOMETRY, allow wildcards.

~~REF\_STN~~

Add START\_STN

Add END\_STN It will be a temporary ‘area’ exception when END\_STN is specified. Can be

blank which will make the exception permanent.

UNIT See explanation of use below.

FT\_P\_MS

TNS\_P\_MS

TNS\_P\_FT

~~MS\_P\_DAY~~

~~INCRS~~

Add AVAILABILITY % of scheduled shift actually spent mining.

Add CAL\_NO Means that the CAL\_EXCEPTION table can be removed.

Add DELAY\_TYPE ‘idle’, ‘stone’ or ‘construct’ (could be more: to be determined).

Add DELAY No. of days section/unit to be idled when exception is applied (can be followed by

a fraction which indicates no. of shifts, see Sequence delays)

Add COMMENT

Note: a delay would be treated like a ‘period’ exception which is temporary.

Old area exceptions will become REF\_EXCEPTIONS with a non-blank END\_STN and SECT, TYPE, UNIT blank. The AREA\_EXCEPTION table will be removed.

* DATE\_EXCEPTIONS Table

~~ID~~

UNIT CM1 thru CMx, or LW1 thru LWx.

Add SECT From GEOMETRY, allow wildcards.

Add TYPE From GEOMETRY, allow wildcards.

START\_DATE ‘blank’ defaults to start of forecast.

END\_DATE

UNIT See explanation of use below.

FT\_P\_MS

TNS\_P\_MS

TNS\_P\_FT

~~MS\_P\_DAY~~

~~INCRS~~

Add AVAILABILITY % of scheduled shift actually spent mining.

Add CAL\_NO means that the CAL\_EXCEPTION table can be removed.

Add DELAY\_TYPE ‘idle’, ‘stone’ or ‘construct’ (could be more: to be determined).

Add DELAY No. of days section/unit to be idled when exception is applied (can be followed by

a fraction which indicates no. of shifts, see Sequence delays)

Add COMMENT

* Units in Exceptions

Unit is added to section if either UNIT1 or UNIT 2 is blank and unit is not equal to UNIT1 or UNIT2.

Unit is removed from section if it matches UNIT1 or UNIT2.

Unit replaces the excepted unit wherever it is when no section is specified. (In this case should the rate be changed?)

Unit is made inactive in RATES (END\_DATE set) if no UNIT,SECTION or TYPE.

* SHUTDOWNS Table

ID

UNIT

START\_DATE If blank default to start of forecast.

END\_DATE If blank default to end of forecast.

* New GEOMETRY\_EXCEPTIONS Table

SECT (allow wildcards)

START\_STN

END\_STN

LINEAR\_FACTOR

RECOV

* SAMPLES and ADJUSTMENTS Tables

Can be missing or be overridden by TONS\_PER\_FT in RATES table.

Add a third type: CMR for CM retreat sections.

* RESULTS Table

BEGIN

SECT

TYPE

UNIT

SUPER

START

END

AREA

LATE

LEAD

MAX\_USED

PERIOD

Add RECOV

Add LINEAR\_FEET

Add SCHEDULE List of shifts scheduled each day this period: 0 thru 32 entries, comma delimited.

PERIOD\_DAYS Sum of days scheduled in period: from SCHEDULE (where shifts > 0).

DAYS List of shifts mined each day this period: 0 thru 32 entries, comma delimited.

WORK\_DAYS Sum of days worked in period: from DAYS (where shifts > 0).

SHIFTS Sum of shifts worked in period: from DAYS.

Add DELAYS List of shifts delayed each day this period: 0 thru 32 entries, comma delimited.

Add TYPE\_DAYS List of delay types corresponding to shifts in DELAYS: 0 thru 32 characters,

comma delimited.

Note: possibly remove SEAM\_HT from quality fields and include DLN\_THICK from ADJUSTMENTS on reports.

Database Editing

* Auto complete section names
* Ability to filter/sort tables for display/editing
* Allow both lower and upper case
* Import calendars from Excel
* Set ‘dirty flag’ in sequence table
* Will need:

Updated ‘New’ database function

‘Import’ old database function

* Check RECOV value in GEOMETRY table (e.g. warn if <35% for CMs)
* Ability to copy/paste/insert multiple rows (perhaps color rows?)
* CASE editing with option to run
* Updated ‘Export’ function
* Change section names as a group

Report Writer

* Need only ‘Select Report’ option from current VCReport
* Add ‘Print Preview’ function
* Add Quality Data Reports
* Add this as an option to Database Editing/Microstation

WinFore

* Reduce to ‘Run’ option only with a single ‘Start’ button: still allow case editing
* Also invoke from Database Editing/Microstation (would go directly to start)
* There would be no Results (VCReport) or Geometry(VCMine) options

Bobby will handle the following

Microstation

* Show delays from Sequence Table
* Remove Access button from Forecaster Menu
* Additional mapping features: quality, clean tns/ft, feet/ms, etc.
* Specify Geometry and/or ref exceptions graphically
* Advance/Retreat dialog needs additional parameters to calculate retreat geometry
* More fields/totals in ‘Timing Loop Results’ dialog and display