

Overview

This document contains discovered information about the LemnaTec Database System. This system contains two primary databases, one for global settings and system information (LTSystem), and the other for jobs being pushed through the system.

User Databases

The following is documentation on relevant tables found in the job specific databases. All image analysis tables will begin with "r_", they are not documented, as they are generated at runtime. The primary purpose of these tables is to perform the image analysis. The following are the key tables involved with the actual processing of the job.

snapshot

snapshot			
A snapshot marks a measurement at some point in time. This usually is defined as a watering event.			
References			
analysis, snapshot changelog, tiled image, tiled intermediate result, weight data			
fieldname	attribute	description	example
id	Big Serial		

propagated	Boolean	Unknown purpose
configuration	Big Int	Unknown purpose
id_tag	Text	
colour_integer	Int	Unknown Purpose
visited	Boolean	If the car has been visited
creator	text	Owner of this snapshot's username as defined in the LTSystem DB.
comment	Text	User input comment for this snapshot (meta comment)
car_tag	text	Value that is the same as id_tag in every instance. Likely refers to the Car tags in LTSystem DB.
measurement_label	text	User created label for this snapshot. IE Media Demo 082613
time_stamp	timestamp	
weight_before	real	Weight before measurement (snapshot).
weight_after	real	Weight after measurement (snapshot).
water_amount	integer	Amount of water added to car. No unit.
completed	boolean	

lemnagrid_description

lemnagrid_description
<p>actual description</p> <p>References</p> <p>lemnagrid src img</p>

fieldname	attribute	description	example
id	bigserial		
propagated	Boolean	Unknown purpose, likely related to the propogated row in the snapshot table	
label	text	A user created label for this lemnagrid, that is, image analysis configuration.	
creator	text	User who owns this configuration	
created	timestamp		
state	integer	Evidence suggests that there are only 2 states, 0 and 1, purpose unknown.	
last_state_change	timestamp		
last_state_changed_by	text	User who changed the state.	
grid_oid	lo	unknown purpose	

job_table

job_table			
Table purpose is unclear, but seems to contain references to analysis, snapshots, and configurations.			
References			
No formal references, but fields are likely related to other tables.			
fieldname	attribute	description	example
id	big_serial		
propagated	Boolean	Likely related to all the other propagated tables	
snapshotid	bigint	Child snapshot.	

idtag	text	Unknown purpose.
grid_id	text	Id of grid used for this job, that is, image analysis configuration.
ana_label	text	Unknown purpose
priority	integer	Priority of job in the job queue.
status	integer	Current status of the job
creator	text	Username of the creator of this job, as in the LemnaSystemDB
erroriness	text	Purpose unclear

analysis

analysis			
<p>Table is designed for tying all of the pieces together. It contains a reference to the snapshot, grid (image analysis config), and images.</p> <p>References</p> <p>snapshot, grid</p>			
fieldname	attribute	description	example
id	big_serial	Primary key. All image tables will refer to the analysis by this ID.	
label	text	User designed label for identifying this analysis.	
partial_analysis	boolean	Unknown purpose	
grid_id	text	Image analysis configuration ID. Id of the grid used for this analysis.	
time_stamp	timestamp		

creator	text	User who owns this analysis
overwritten_by_ana_i	integer	Unknown purpose
snapshot_id	bigint	Foreign key that references an associated snapshot.

LTSysystem

The last section is for the database LTSysystem. This database is primarily used for global and system settings, such as watering, usernames, and different objects which are in use.

plants

plants			
Table used for identifying plants on the conveyer belts.			
References			
fieldname	attribute	description	example
id	big_serial		
propagated	Boolean	Recurring field of unknown purpose	
identcode	text	Purpose unclear, but likely some identification of the plant	
carid	text	Id of the hobo the plant is involved with.	
type	text	No entries in database, but likely a text label for the plant (genotype).	
creator	text	User who created this plant entry.	
active	boolean	Marker distinguishing if the plant is currently being used.	
timestamp	timestamp		

on_system	boolean	Similar to active.
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watering

watering			
Table for global watering schedule.			
References			
fieldname	attribute	description	example
id	big_serial		
identcode	text	Some code that uniquely identifies the entry.	
time	timestamp		
starthour	int	0-24 range marking when the watering should begin.	
finishhour	int	0-24 range marking when the watering should finish.	
quantity	int	Quantity that will be output.	
pumpname	text	Human readable label for the pump(s)	
type	text	Human readable label for the watering entry.	
formula	text	purpose unclear	
done	boolean		
status	text	Current status of the watering event.	
processed	timestamp	Time at which the event was processed.	
deficiency	text	Purpose unclear.	
creator	text	User who created this watering entry	

deflimit	int	Purpose unclear.
created	timestamp	
pumpconfigid	int	Id of the pumps being used in this process. Should be comma seperated list.