



Data Model Description

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History

<In this section you can add information about the last revision of the doc.>

Date	Ver.	Author/Comments
2005/03/06	0.3	Andrew Craig Updated all tables for current structure.
2003/07/02	0.2	Keith Fulton Revised and updated for current plan.
2001/12/15	0.1	Keith Fulton Initial table definitions and descriptions created for dev team comments.



Introduction

The purpose of this document is to summarize and explain the data model used by the Planeshift MySQL database. As with most large software efforts, the database is a crucial and complex part of the system and must be understood well by all server engine developers. Additionally, client developers will gain a deeper understanding of how the game works by understanding the database.

Structure

The document will be divided into sections based on “SuperEntity”, i.e. the high level conceptual objects which in most cases will require more than one table to implement. Each section will enumerate the tables which make up its SuperEntity, with column by column descriptions and functional descriptions of how the table is used.

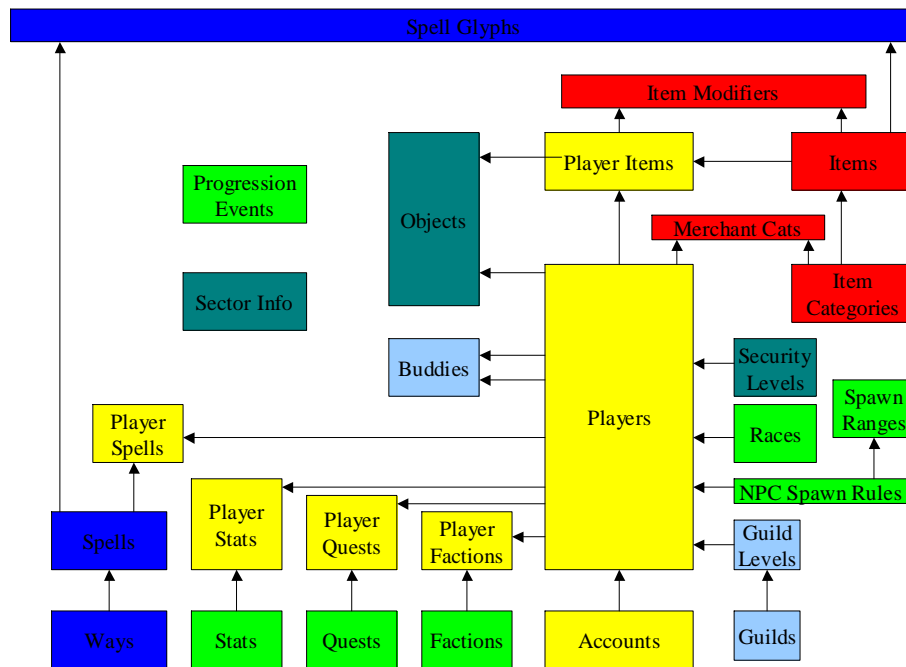
Naming Standards

In general, the following naming standards were followed:

- Table names are always plural.
- Auto generated sequence numbers serving as primary keys are always named “id”.
- Columns which have only “Yes” or “No” answers are suffixed with “ind” (short for indicator).
- Columns which have other one letter mnemonic abbreviations should be suffixed with “code” instead of “ind”.
- Columns representing foreign keys to other tables have the name of the linked table in the name, followed by the column name if a detail record, or a purpose description if the table represents supplemental information.



Overall System Entity Relationship Diagram



In this ERD, all entities not related to NPC Dialog are shown, and are color-coded as follows:

- Yellow – Data specific to each player/character in the game.
- Blue – Data specific to the magic system.
- Green – Data related to RPG rules and settings.
- Red – Data related to Item specification.
- Light Blue – Data related to player social support.
- Teal – Data stored for technical server or graphics reasons.



Characters and Creatures

accounts Table

The Accounts table represents every login account in the game, which is a distinct userid/password combination used by a player to access his character(s) in the game.

Here is the definition for this table:

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
id	PRI	Int(10)	Auto-increment unique identifier for each account.
username	Unique	Varchar(50)	Username of the account. This is the email address of the account the person created using the web registration system.
password		Varchar(32)	Password to access account, MD5 Sum
last_login		datetime	Date and Time of last successful login.
created_date		datetime	Date and Time of account creation.
last_login_IP		Varchar(16)	IP address of last login
security_level		tinyint(3)	The GM level of the account. Ranges from 0 to 9 with 0 being normal players and 9 a full server admin.
verificationid		varchar(32)	The registration verification id for this account.
country		varchar(32)	The country this player is from. Used for stats purposes only.
status		char(1)	U – Un verified B – Banned A – Verified
comments		text	
realname		varchar(64)	Real name of player.



characters Table

The characters table represents every player in the system. Each character is mapped to an account (or superclient account for NPCs) It also maintains a record for every living NPC, since they have Strength, Intelligence, and so on just like players.

Here is the definition for this table:

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
id	PRI	Int(10)	Auto-increment unique identifier for each player
name		Varchar(30)	First name of character.
lastname		Varchar(30)	Last name of character
racegender_id		smallint(5)	Foreign key to Races table.
base_strength		Float(10,2)	The character's base strength level.
base_endurance		Float(10,2)	The character's base endurance level.
base_agility		Float(10,2)	The character' base agility level.
base_intelligence		Float(10,2)	The character's base intelligence level.
base_will		Float(10,2)	The character's base will level.
base_charisma		Float(10,2)	The character's base charisma level.
base_hitpoints_max		Float(10,2)	The max hitpoints the character can currently have
mod_hitpoints		Float(10,2)	The current hitpoints the character has.
base_mana_max		Float(10,2)	Character's max mana level.
mod_mana		Float(10,2)	Character's current mana level.
base_fatigue_max		Float(10,2)	Character's maximum fatigue level.
mod_fatigue		Float(10,2)	Character's current fatigue level.
money_circles		Int(10)	Number of circles in inventory.
money_octas		Int(10)	Number of octas in inventory.
money_hexas		Int(10)	Number of hexas in inventory.
money_trias		Int(10)	Number of trias in inventory.
bank_money_circles		Int(10)	Circles in bank vaults
bank_money_octas		Int(10)	Octas in bank vaults
bank_money_hexas		Int(10)	Hexas in bank vaults
bank_money_trias		Int(10)	Trias in bank vaults.



<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
loc_sector_id		Int(10)	Key into the sector_info table for characters location
loc_x		Float(10,2)	Players x location in sector
loc_y		Float(10,2)	Players y location in sector.
loc_z		Float(10,2)	Player's z location in sector.
loc_yrot		Float(10,2)	Player's rotation about Y (ie facing)
guild_member_of		Int(10)	Key into guilds table for player's current guild.
		TinyInt(1)	Player's level in guild.
guild_points		Int(10)	Player's guild points.
guild_public_notes		Varchar(255)	Player's public guild log.
guild_private_notes		Varchar(255)	Player's private guild notes.
faction_standings		Blob	Csv comma text for players standings with different factions.
progression_script		Blob	Any scripts that the player has pending on their character.
npc_spawn_rule		Int(10)	Key into the spawn rule. This is only used for NPC characters.
npc_master_id		Int(10)	If this is a clone of a npc then it will share all the same qualities as the master in terms of skills and stats.
npc_impervious_ind		Char(1)	Y – The NPC cannot be attacked N – The NPC Can be attacked
account_id		Int(10)	Key into the accounts table for who owns this character. For NPCs the account ID should point to one of the super client accounts.
time_connected_sec		Int(10)	The total time in seconds that this player has been in world. (Counts only online time not total existence time).
experience_points		Bigint(15)	Character's current level of experience.
progression_points		Int(10)	Character's current number of progression points.
duel_points		Float(10,2)	The amount of duel points the character has one.
advisor_points		Float(10,2)	The number of advisor points character has been awarded.
Description		Text	Player defined description for player.
kill_exp		Int(5)	Amount gained for killing this character.



Character_Traits Table

This table is a simple character/trait pair storage. Here each character keeps a list of all it's traits.

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
character_id		Int(10)	Key into character table
trait_id		Tinyint(3)	Key into traits table

character_skills Table

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
character_id	PRI	Int(10)	Key into the character table for who this entry is for.
skill_id	PRI	Int(10)	Key into the skills table for which skill this entry is for.
skill_Z		Int(10)	Current practice level of the skill.
skill_Y		Int(10)	Current knowledge level of the skill.
skill_Rank		Int(10)	Current skill rank.

character_quessts Table

This table stores the current status of the quessts a character is involved in. Also stores the players personal notes about the quessts.

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
player_id	PRI	Int(10)	Key into character table this entry is for.
quest_id	PRI	Int(10)	Key into quessts table that this entry is for.
Status		Char(1)	Current quest status. D – Delete on logout C - Completed A - Assigned
Notes		Varchar(255)	Player's personal notes.
assigner_id		Int(10)	Key into character table for NPC that assigned quest.

player_spells Table

This table stores the spells that characters have learnt by combining of the glyphs in the correct order.

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
player_id	PRI	Int(8)	Key into character table that that this entry is for.
spell_id	PRI	Int(8)	Key into spells table that this entry is for.
spell_slot		Tinyint(3)	Where this spell is in the character spell book.

character_advantages Table

<i>Column Name</i>	<i>KEY</i>	<i>Type</i>	<i>Description</i>
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<i>Column Name</i>	<i>KEY</i>	<i>Type</i>	<i>Description</i>
character_id	PRI	Int(10)	Key into characters table for this entry.
advantage_id	PRI	Int(10)	ID for this advantage. Unsure of source



NPCS

npc_bad_text Table

This table stores all the dialog that was said to a npc that it didn't understand. Used to make the NPC's smarter.

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
Id	PRI	Int(10)	AutoIncrement
Badtext		Varchar(255)	What was said to the NPC.
Player		Varchar(50)	Player name that said the text.
Npc		Varchar(50)	Name of the npc that did not understand.
Occurred		Datetime	When the text was said.

npc_disallowed_words Table

This is a list of words that NPCs should not have because they are too common.

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
word	PRI	Varchar(30)	The word the NPC should have in it's dictionary.

npc_knowledge_area Table

This table maintains a list of the different Knowledge areas (ie common dialog set) that a NPC knows about.

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
player_id	PRI	Int(10)	Key into characters table for this npc.
Area	PRI	Varchar(30)	The name of the knowledge area this npc has.
Priority		Tinyint(1)	The order in which this knowledge area is in it's list of different ones.

npc_responses Table

This table stores the list of npc responses to dialog. It will pick on of the 5 responses at random to use.

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
Id	PRI	Int(10)	AutoIncrement
response1		Text	Response
response2		Text	Response
response3		Text	Response
response4		Text	Response
Response5		Text	Response
pronoun_him		Varchar(30)	If the response uses a name mark the name here



<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
pronoun_her		Varchar(30)	If the response uses a name mark the name here
pronoun_it		Varchar(30)	If the response uses a name mark the name here
pronoun_them		Varchar(30)	If the response uses a name mark the name here
Script		Blob	Script to run with this response.
quest_id		Int(10)	Key into quests that this response triggers.

npc_spawn_ranges Table

The NPC Spawn Ranges table is where rectangular areas are defined, within which a particular mob will spawn randomly. A Spawn Rule can specify 0 to N number of these ranges, and the mob will distribute the probability of spawning in each particular range proportionally to the area of the range.

Here is the definition for this table:

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
Id	PRI	Int(10)	AutoIncrement
npc_spawn_rule_id		Int(10)	Key into npc_spawn_rules for this range.
X1		Float(10,2)	Corner 1 of spawn box.
Y1		Float(10,2)	Corner 1 of spawn box.
Z1		Float(10,2)	Corner 1 of spawn box.
X2		Float(10,2)	Corner 2 of spawn box.
Y2		Float(10,2)	Corner 2 of spawn box.
Z2		Float(10,2)	Corner 2 of spawn box.
cstr_id_spawn_sector		Int(10)	Key into common_strings for sector name of range box.
range_type_code		Char(1)	

npc_spawn_rules Table

The NPC_Spawn_Rules table is what determines how long a monster stays dead when he is killed and where he will appear when he respawns. Also, if on rare occasions, another monster is spawned instead of the replaced one (a rare spawn), this is specified in this table.

Here is the definition for this table:

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
Id	PRI	Int(10)	AutoIncrement
min_spawn_time		Bigint(10)	Min time before spawning.
max_spawn_time		Bigint(10)	Max time before spawning.
substitute_spawn_odds		Float(10,2)	Percentage chance that the rare spawn mob will be spawned instead of the standard one.
substitute_player		Int(10)	Player ID foreign key to the substitute mob in rare spawn cases.



<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
fixed_spawn_x		Float(10,2)	For mobs which always respawn in the same place, they can specify that location in the following 5 fields.
fixed_spawn_y		Float(10,2)	
fixed_spawn_z		Float(10,2)	
fixed_spawn_rot		Float(10,2)	
fixed_spawn_sector		Varchar(40)	
loot_category_id		Int(10)	Key into loot_categories table.
dead_remain_time		Int(10)	How long to remain dead before starting respawn process.

npc_synonyms Table

This table is used to group common words under a single one. For example: 'Hi' is the same as 'Hello' or 'Greetings'.

<i>Column</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
Word	PRI	Varchar(30)	The word that is a synonym.
synonym_of		Varchar(30)	The common word.
more_general		Varchar(30)	

npc_triggers Table

The key words that have to be said to the NPC to get them to trigger a respon.

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
Id	PRI	Int(10)	AutoIncrement
Trigger		Varchar(255)	Trigger words
response_id		Int(10)	Key into npc_responses table for the response for this trigger.
prior_response_required		Int(10)	Key into npc_responses table for the response that has to be given before this one can be trigger.
min_attitude_required		Int(5)	NPC attitude towards character for trigger.
max_attitude_required		Int(5)	NPC attitude towards character for trigger.
Area		Varchar(30)	Knowledge area trigger belongs to.
quest_id		Int(10)	

sc_npc_definitions Table

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
char_id	PRI	Int(10)	Key into characters table.
Name		Varchar(30)	



<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
Npctype		Varchar(30)	
Region		Varchar(30)	
move_vel_override		Float(10,2)	
ang_vel_override		Float(10,2)	
char_id_owner		Int(10)	
console_debug		Char(1)	



Items

item_animations Table

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
Id	PRI	Int(10)	AutoIncrement
cstr_id_animation	PRI	Int(10)	Key into common strings for animation string.
Min_use_level		Int(5)	
type_flags		Smallint(5)	

item_categories Table

This stores a list of all the possible item categories for merchants to sell.

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
category_id	PRI	Int(8)	AutoIncrement
Name		Varchar(20)	Name of the category.

item_instances Table

This table stores a list of all the items in game. This includes items that are in containers or in players inventory or in world.

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
Id	PRI	Bigint(20)	AutoIncrement
char_id_owner		Int(10)	Key into characters table for the owner of this item. 0 if no owner and item is in the 'world'.
parent_item_id		Bigint(20)	If not 0 then the items is in a container and this is a key into the item_instances table for this items parent item.
Location_in_parent		Smallint(4)	Slot number the item is in the parent (owner or container)
stack_count		Int(10)	Amount of the item in this stack.
creator_mark_id		Int(10)	If the item is crafted this is a key into the characters table for the crafter.
guild_mark_id		Int(10)	If the item is crafted this is a key into the guilds table for that crafter.
sector_info_id		Smallint(4)	Key into sector_info table for the world location. (If item is in world).
loc_x		Float(10,2)	X Location of item in world (if in world)
loc_y		Float(10,2)	Y Location of item in world (if in world)
loc_z		Float(10,2)	Z Location of item in world (if in world)
loc_yrot		Float(10,2)	Y axis rotation of item (if in world)
item_quality		Float	The quality of the item (0 - 1)
item_decay		Float(3,2)	How the item decays in game.
item_stats_id_standard		Int(10)	Key into the item_stats table for the stats definition.



<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
item_stats_id_unique		Int(10)	Key into the item_stats table for the unique stats of this item.
location		Char(1)	Where the item is: I – Inventory E – Equiped C- In Container
equipped_slot		Varchar(30)	Which equipment slot the item is in.
Flags		Varchar(40)	String field of the flags on the item.
lock_str		Int(5)	The strength of lock on this item (if any)
lock_skill		Int(2)	?
openable_locks		Varchar(100)	?

item_stats Table

This table defines the 'base' stats for items. Every item in the game is an instance of one of this stats definitions.

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
Id	PRI	Int(10)	AutoIncrement
stat_type		Char(1)	B – Base Stat U – unique Stat
Name		Varchar(40)	Name of item
Weight		Float(10,2)	Object weight
visible_distance		Float(10,2)	The range to the item before it becomes visible to players.
Size		Int(45)	The size of the object (used to measure capacity)
container_max_size		Int(5)	The largest item that can be placed inside.
valid_slots		Varchar(100)	String fields of the slots an item can go in.
decay_resistance		Float(10,2)	How well this item keeps.
Flags		Varchar(40)	String field of item flags.
item_skill_id_1		Smallint(3)	Key into skills table that this item trains.
item_skill_id_2		Smallint(3)	Key into skills table that this item trains.
item_skill_id_3		Smallint(3)	Key into skills table that this item trains.
item_bonus_1_attr		Varchar(15)	
item_bonus_2_attr		Varchar(15)	
item_bonus_3_attr		Varchar(15)	
item_bonus_1_max		Float(10,2)	
item_bonus_2_max		Float(10,2)	
item_bonus_3_max		Float(10,2)	
weapon_speed		Float(10,2)	
weapon_dmg_slash		Float(10,2)	The amount of slash damage the item does.
weapon_dmg_blunt		Float(10,2)	The amount of blunt damage the item does.
weapon_dmg_pierce		Float(10,2)	The amount of piercing damage the item does.



<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
weapon_dmg_force		Float(10,2)	The amount of force damage the item does.
weapon_dmg_fire		Float(10,2)	The amount of fire damage the item does.
weapon_dmg_ice		Float(10,2)	The amount of ice damage the item does.
weapon_dmg_air		Float(10,2)	The amount of air damage the item does.
weapon_dmg_posion		Float(10,2)	The amount of posion damage the item does.
weapon_dmg_disease		Float(10,2)	The amount of disease damage the item does.
weapon_dmg_holy		Float(10,2)	The amount of holy damage the item does.
weapon_dmg_unholy		Float(10,2)	The amount of unholy amage the item does.
weapon_dmg_pct_slash		Float(10,2)	The amount of slash damage the item does.
weapon_dmg_pct_blunt		Float(10,2)	The amount of blunt damage the item does.
weapon_dmg_pct_pierce		Float(10,2)	The amount of piercing damage the item does.
weapon_dmg_pct_force		Float(10,2)	The amount of force damage the item does.
weapon_dmg_pct_fire		Float(10,2)	The amount of fire damage the item does.
weapon_dmg_pct_ice		Float(10,2)	The amount of ice damage the item does.
weapon_dmg_pct_air		Float(10,2)	The amount of air damage the item does.
weapon_dmg_pct_posion		Float(10,2)	The amount of posion damage the item does.
weapon_dmg_pct_disease		Float(10,2)	The amount of disease damage the item does.
weapon_dmg_pct_holy		Float(10,2)	The amount of holy damage the item does.
weapon_dmg_pct_unholy		Float(10,2)	The amount of unholy amage the item does.
weapon_penetration		Float(10,2)	The penetration ability of the weapon
weapon_block_targeted		Float(10,2)	The ability of the weapon to block incoming attacks from target.
weapon_block_untargeted		Float(10,2)	The ability of the weapon to block incoming attacks from other targets.
weapon_counter_block		Float(10,2)	The ability of the weapon to counter an attack from a block.
armor_hardness		Float(10,2)	A measure of an items hardness as an armour.
armor_prot_slash		Float(10,2)	The amount of slash protection the item does.
armor_prot_blunt		Float(10,2)	The amount of blunt protection the item does.
armor_prot_pierce		Float(10,2)	The amount of piercing protection the item does.
armor_prot_force		Float(10,2)	The amount of force protection the item does.
armor_prot_fire		Float(10,2)	The amount of fire protection the item does.
armor_prot_ice		Float(10,2)	The amount of ice protection the item does.
armor_prot_air		Float(10,2)	The amount of air protection the item does.
armor_prot_posion		Float(10,2)	The amount of posion protection the item does.
armor_prot_disease		Float(10,2)	The amount of disease protection the item does.
armor_prot_holy		Float(10,2)	The amount of holy protection the item does.
armor_prot_unholy		Float(10,2)	The amount of unholy protection the item does.
cstr_id_gfx_mesh		Int(10)	Key into common_strings table for mesh of item.
cstr_id_gfx_icon		Int(10)	Key into common_strings table for the inventory icon of this item.
cstr_id_gfx_texture		Int(10)	Key into common_strings for the texture of this item.



<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
cstr_id_part		Int(10)	
armorvsweapon_type		Varchar(20)	
category_id		Int(8)	Key into item_categories table for the merchant category of this item.
base_sale_price		Float(10,2)	The sale price (in trias) of this item.
item_type		Varchar(30)	
requirement_1_name		Varchar(30)	Stat or skill name this item requires to be used.
requirement_1_value		Float(10,2)	Value for above requirement.
requirement_2_name		Varchar(30)	Stat or skill name this item requires to be used.
requirement_2_value		Float(10,2)	Value for above requirement.
requirement_3_name		Varchar(30)	Stat or skill name this item requires to be used.
requirement_3_value		Float(10,2)	Value for above requirement.
item_type_id_ammo		Int(10)	Key into item_stats table for the type of ammo this item uses.
spell_id_on_hit		Int(10)	Key into spells table as to which spell is cast if this item hits something.
spell_on_hit_prob		Float(6,4)	
spell_id_feature		Int(10)	
spell_feature_charges		Int(10)	
spell_feature_timing		Int(10)	
item_anim_id		Int(10)	Key into item_animations table for the character animation to play when using this item.
Description		Text	The description of this item.
Sound		Varchar(50)	The sound to play when pickup/drop.
item_quality		Int(11)	Basic quality of the item.
prg_evt_equip		Varchar(40)	Key into progression_events table for the script that is triggered when item is equipped.
prg_evt_unequip		Varcchar(40)	Key into progression_events table for the script that is triggered when item is un-equipped



Socials Entities

merchant_item_categories Table

This table maps merchants to item categories to show which merchants buy and sell which types of item.

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
player_id	PRI	Int(8)	Key into characters table for this merchant.
category_id	PRI	Int(8)	Key into item_categories table for merchant to belong to.

trainer_skills Table

<i>Column</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
player_id	PRI	Int(8)	Key into characters table for NPC trainer.
skill_id	PRI	Int(8)	Key into skills table for the skill that can be trained.
min_rank	PRI	Int(8)	Minimum skill trainer can start at.
max_rank		Int(8)	Maximum rank skill be trained.
min_faction		Float	Faction level for training.

bad_names Table

This table stores a list of restricted names that cannot be used as player names because they are reserved or are not appropriate for PlaneShift.

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
Id	PRI	Int(8)	AutoIncrement
Name		Text	The name that is restricted.

factions Table

This table stores all the factions in the game.

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
Id	PRI	Int(8)	AutoIncrement
faction_name		Varchar(40)	The name of the faction
faction_weight		Float(6,3)	How much weight this faction carries in the world.

guilds Table

This table tracks the existence and ownership of all guilds.

Here is the definition for this table:

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
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<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
Id	PRI	Int(11)	AutoIncrement
Name		Varchar(255)	Name of the guild.
char_id_founder		Int(10)	Key into charcters table for the founding character.
web_page		Varchar(255)	Guild's web page.
date_created		Datetime	When the guild was created.
karma_points		Int(10)	Awarded Karma points.
secret_ind		Char(1)	Y – Guild labels will not show up N – Guild labels will show up.
Motd		Char(255)	Guilds Message of the Day that shows up in login.
Alliance		Int(10)	Key into the alliacnes table that this guild belongs to.

guildlevels Table

This table tracks the levels and rights of each guild.

Here is the definition for this table:

Column Name	Key	Type	Description
guild_id	PRI	Int(11)	Key into guilds table.
Level	PRI	Smallint(3)	Level Index.
level_name		Varchar(25)	Name of level in guild.
Rights		SmallInt(3)	Bitfield of capabilities for this level in this guild.



buddy_list Table

This table tracks the “friend list” for each player, so when they log on, they will be able to see a list of their buddies who are currently online.

Here is the definition for this table:

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
player_id	PRI	Int(10)	Key into character table for this entry.
player_buddy	PRI	Int(10)	Key into character table for this character's buddy.

Online notification function would simply pull back all the player buddy ids in this table whose player id is the player logging on, and could notify the player which ones are online.

alliances Table

This table stores the various alliances between guilds.

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
Id	PRI	Int(11)	AutoIncrement
Name	UNIQUE	Varchar(25)	The name of the alliance
leading_guild		Int(11)	Key into the guilds table for the guild that is the head of the alliance.

petitions Table

This table stores a list of player generated petitions for GMs to handle.

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
Id	PRI UNIQUE	Int(10)	AutoIncrement
Player		Int(11)	Key into characters table the petition is for.
Petition		Blob	Petition information from player.
Status		Varchar(20)	Petition status.
Category		Varchar(30)	
created_date		Datetime	When the petition was sent by player`
closed_date		Datetime	When the petition was closed (by player or GM)
assigned_gm		Int(10)	Key into characters table for the GM assigned.
Resolution		Blob	How the petition was solved.
escalation_level		Int(10)	The GM level of the petition. (Not all GM levels can solve all petitions.)

RPG Rules Entities



skills Table

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
skill_id	PRI	Int(10)	Skill index
Name		Varchar(35)	Skill name
Description		Varchar(255)	Description of skill that will be shown to client.
practice_factor		Int(8)	0-100 value of practice level needed for this skill.
Price		Int(2)	Price (trias) to gain knowledge in this skill
base_rank_cost		Int(2)	

progression_events Table

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
Name	PRI	Varchar(40)	Name of the event
event_script		Text	XML script for event.

loot_categories Table

This table stores a list of the different loots NPCs can have.

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
cat_id	PRI	Int(10)	Loot Category ID
item_stat_id	PRI	Int(10)	Key into item_stats for item.
Probability		Float(5,4)	Probability that an item will be dropped.
min_money		Int(10)	Min amount of trias that will be dropped.
max_money		Int(10)	Max amount of trias that will be dropped.

armor_vs_weapon Table

<i>Column name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
Id	PRI	Int(5)	AutoIncrement
1a		Float	
1b		Float	
1c		Float	
1d		Float	
2a		Float	
2b		Float	
2c		Float	
3a		Float	
3b		Float	
3c		Float	



Quests Table

The Quests table is where descriptions of quests are kept. This is essentially so that players can track what quests have been assigned to them and where they are in each one.

Here is the definition for this table:

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
Id	PRI	Int(10)	AutoIncrement
Name		Varchar(40)	Quest name
task		Varchar(250)	What the quest involves.
cstr_id_icon		Int(10)	Key into common_strings table for quest icon.
master_quest_id		Int(10)	
minor_step_number		Tinyint(3)	
player_lockout_time		Int(10)	
quest_lockout_time		Int(10)	

racess_info Table

The Races table is where descriptions of races are kept.

Here is the definition for this table:

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
race_id	PRI	Int(10)	Race ID
Name		Varchar(35)	Name of race
cstr_id_mesh		Int(10)	Key into common_strings for base mesh for race.
start_x		Float(10,2)	Starting location for new character.
start_y		Float(10,2)	Starting location for new character.
start_z		Float(10,2)	Starting location for new character.
size_x		Float(12)	Character dimensions.
size_y		Float(12)	Character dimensions.
size_z		Float(12)	Character dimensions.
start_sector_id		Int(10)	Key into sector_info table for starting sector.
cstr_id_base_texture		Int(10)	Key into common_strings for starting texture for race.
initial_cp		Int(10)	Starting CP points for this race for character creation.
start_str		Int(5)	Starting STR value.
start_end		Int(5)	Starting END value.
start_agi		Int(5)	Starting AGI
start_int		Int(5)	Starting Intelligence
start_will		Int(5)	Starting Will value.
start_cha		Int(10)	Starting Charisma value.



Crafting & Trade Skills

trade_autocontainers Table

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
Id	PRI	Int(10)	AutoIncrement
item_instance_id		Bigint(20)	Key into item_instance table for this container.
garbage_item_id		Bigint(20)	Key into item_instance table for garbage item if transform failed.
owner_guild_id		Int(10)	Key into guilds table for the owning guild of container.
trans_points		Int(10)	
Animation		Varchar(30)	Animation to player when using item.
Description		Varchar(30)	Description of item.

trade_combinations Table

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
Id	PRI	Int(10)	AutoIncrement
pattern_id		Int(10)	Key into trade_patterns table for the pattern the combination is for.
result_id		BigInt(20)	Key into item_stats table for the result of the combination.
result_qty		Int(10)	Result quantity produced.
item_id		BigInt(20)	Key into item_stats table for the required item.
min_qty		Int(10)	Minimum quantity of required item.
max_qty		Int(10)	Maximum quantity of required item
description		Varchar(255)	Description of combination.

trade_constraints Table

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
Id	PRI	Int(10)	AutoIncrement
Constrnt		Varchar(64)	
Message		Varchar(128)	
Description		Varchar(255)	

trade_patterns Table

This table defines all the 'mind' item patterns that are used for crafting. Each item that can be made should be part of one of these patterns.

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
Id	PRI	Int(10)	AutoIncrement
pattern_name		Varchar(40)	Name of the pattern
group_id		Int(8)	Name of pattern group this pattern is part of.



<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
designitem_id		Bigint(20)	Key into item_stats table of the item the pattern corresponds to.
k_factor		Float(10,2)	
Description		Varchar(255)	

trade_transformations Table

Table that stores all the possible transformations of one item into another.

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
Id	PRI	Int(10)	AutoIncrement
pattern_id		Int(10)	Key into trade_patterns table for this transformation.
result_id		Bigint(20)	Key into item_stats table for the item that is produced.
result_qty		Int(8)	Amount of item that is produced.
item_id		Bigint(20)	Item to be transformed.
item_qty		Int(8)	Quantity required for transformation.
item_quality		Float(10,6)	Maximum result quality of the transformation.
trans_points		Int(8)	amount of time (seconds) to complete transformation
Animation		Varchar(30)	Animation to play while transform is taking place.
Workitem_id		Bigint(20)	Key into item_stats table for required work item (like furnace).
equipment_id		Bigint(20)	Key into item_stats table for item that has to be equipped for transformation.
Constraints		Varchar(64)	constraints that apply to transformation.
garbage_id		Bigint(20)	Key into item_stats table for failed transformation.
garbage_qty		Int(8)	Amount of garbage item produced.
primary_skill_id		Int(10)	Key into skills table for the requires skill for transformation.
primary_min_skill		Int(8)	Minimum skill value to do transformation.
primary_max_skill		Int(8)	Maximum skill value to do transformation.
primary_practice_points		Int(8)	number of practice primary skill points gained for performing transformation.
primary_quality_factor		Int(3)	percentage of the primary skill range that applies to quality
secondary_skill_id		Int(10)	Key into skills table for the requires skill for transformation.
secondary_min_skill		Int(8)	Minimum skill value to do transformation.
secondary_max_skill		Int(8)	Maximum skill value to do transformation.
secondary_practice_points		Int(8)	number of practice secondary skill points gained for performing transformation.
secondary_quality_factor		Int(3)	percentage of the secondary skill range that applies to quality
Description		Varchar(255)	Description of transformation.



Game Support Entities

natural_resource Table

This table is a list of the natural resources that can be collected from the world by various production means (ex mining)

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
Id	PRI	Int(10)	AutoIncrement
Sector		Varchar(45)	The name of the sector the resource is in.
loc_x		Float(10,2)	Centre point for resource.
loc_y		Float(10,2)	Centre point for resource.
loc_z		Float(10,2)	Centre point for resource.
Radius		Float(10,2)	Range from centre point where resource can be found.
visible_distance		Float(10,2)	
Probability		Float(10,6)	Chance of successful collection of resource.
Skill		Smallint	Key into skills table for the skill required to collect resource.
skill_level		Int(3)	Level of skill required to collect resource.
item_quality		Float(10,6)	Quality of resource collected.
Animation		Varchar(30)	Animation to play while collecting resource.
anim_duration_seconds		Int(10)	The length of time the animation should play.
item_id_reward		Int(10)	Key into item_stats for the resource that is collected.
reward_nickname		Varchar(30)	

gm_command_log Table

This table stores a list of all the commands that GM's have used. It is for monitoring for GM abuse.

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
Id	PRI	Int(10)	AutoIncrement
Gm		Int(10)	Key into characters table for this GM
Command		Varchar(200)	The command that the GM used.
Player		Int(11)	Key into the characters table for the target of the GM command
ex_time		Datetime	When this command was issued.

common_strings Table

This is a list of strings that can be shared across client and server. Basically a way to reduce size/bandwidth.

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
Id	UNIQUE	Int(8)	AutoIncrement



<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
String	UNIQUE	Varchar(60)	The common string.

action_locations Table

These are locations that are based on locations in maps that the player can interact with.

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
Id	PRI	INTEGER	AutoIncrement ID
Master_id		INTEGER	
Name		Varchar(45)	The name of this location.
Sectorname		Varchar(30)	The name of the sector this location is in.
Meshname		Varchar(30)	The name of the mesh this location is attached to.
polygon		INTEGER	The polygon in the mesh that this location is for.
pos_x		FLOAT	The centre X location for this action location.
pos_y		FLOAT	The centre Y location for this action location.
pos_z		FLOAT	The centre Z location for this action location.
radius		FLOAT	The radius to trigger this action around the above defined point.
Responsetype		Varchar(10)	What type of response can be given. EXAMINE
Response		TEXT	The text to send for this action location to the client.



sectors Table

Currently, this table is only used to define weather behaviors per sector. Later, other per sector information could be stored here as well. Each sector can have frequent, long, gentle rains, or infrequent, short intense storms with lots of lightning.

Here is the definition for this table:

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
Id	PRI	Smallint(3)	AutoIncrement
Name	UNI	Varchar(30)	Name of sector in question.
Rain_min_gap		Int(10)	Minimum Time gap between end of rain and start of next rain.
Rain_max_gap		Int(10)	Maximum Time gap between end of rain and start of next rain. The weathermanager on the server randomly selects a time interval in the max to min range.
Rain_min_duration		Int(10)	Minimum Length of rain once it starts.
Rain_max_duration		Int(10)	Maximum Length of rain once it starts.
Rain_min_drops		Int(10)	Minimum number of drops in each rainstorm.
Rain_max_drops		Int(10)	Maximum number of drops in each rainstorm.
Lightning_min_gap		Int(10)	Minimum interval between lightning flashes during rain.
Lightning_max_gap		Int(10)	Maximum interval between lightning flashes during rain.

Security_Levels Table

The Security_Levels table is where the various security levels are listed. Right now there are 6 defined levels, ranging from 0 for player, 4 for Admin, and 99 for Superclient.

Here is the definition for this table:

Column Name	Key	Type	Description
Level	PRI	Int(5)	Level of Security authorization in question.
Title		Varchar(30)	Text name of this level (Player, GM, Admin, etc.)



Traits Table

This table defines all the possible character 'traits'. These are things that players can use to customize the appearance of their character (or NPC's). This can be things like hairstyles, hair colour, beards, faces, etc. This is the master list of possible traits.

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
Id	PRI	Int(10)	Auto incremented db key.
next_trait		Int(10)	Used for traits that is composed of multiple traits. Eg. skin have to have traits for hands, feets,...
race_id		Int(30)	Key into the race_info table. Picks up race AND gender.
only_npc		Int(1)	0 – Available to player 1 – Available to npc only.
Location		Varchar(30)	Name of the group this trait belongs to. (Used for character creation screens).
Name		Varchar(30)	The name that will appear in the character creation screens for this choice.
mesh		Varchar(30)	The name of the mesh on the character model to change.
Material		Varchar(30)	The material name for this trait choice to go onto the mesh.
Texture		Varchar(255)	Texture file name for the above material.
Submesh		Varchar(255)	The name of the submesh (if any) to change

server_options Table

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
Option_name	PRI	Varchar(50)	Option name. Current options are: 1) db_version 2) standard_motd
option_value		Varchar(255)	Value for option above

tips Table

This is a list of all the tips in the game that are shown at login or via the /tip command.

<i>Column Name</i>	<i>Key</i>	<i>Type</i>	<i>Description</i>
Id	PRI	Tinyint(3)	AutoIncrement
Tip		Varchar(255)	Tip text.



Spells SuperEntity

Ways Table

This table simply lists the major 6 categories of magic. It is used to subdivide the Spells.

Here is the definition for this table:

Column Name	Key	Type	Description
id	PRI	Int (10)	Unique number for the Way
name		Varchar(20)	Name of Way (“Crystal”, “Azure”, etc.).

Spells Table

This table summarizes all the spells which are available in the game and gives the engine all information required to execute and animate the spell.

Here is the definition for this table:

Column Name	Key	Type	Description
Id	PRI	Int(8)	AutoIncrement
name	UNI	Varchar(40)	Name of spell, like “Lucifer’s Hammer”.
way_id		Int (8)	Key into ways table for way the skill belongs to.
Realm		Tinyint(3)	The realm (ie level) of the spell in the way.
casting_duration		Int(10)	Time (csTicks) it takes to cast spell.
interval_time		Int(10)	
caster_response		Varchar(255)	
target_response		VarChar(255)	
image_name		Varchar(100)	
spell_description		Text	Description of spell shown to client.
Offensive		Tinyint	
progression_event		Varchar(255)	Name of event fired if spell cast.
saved_progression_event		Varchar(255)	Name of event fired if player saved vs spell
saving_throw		Varchar(32)	Stat or skill name for saving throw



Column Name	Key	Type	Description
saving_throw_value		Int(4)	Value to be used in saving throw.
max_power		Int(4)	Max power that can be put into spell
target_type		Int(4)	
cstr_npc_spell_category		Int(10)	
npc_spell_power		Float(10,3)	



Spell_Glyphs Table

This table is used to define Glyph sequences and combinations which are valid to produce a certain spell. The magic system uses these to validate player-attempted combinations.

Here is the definition for this table:

Column Name	Key	Type	Description
Spell_Id	PRI	Int (10)	Foreign Key to Spells table, for which spell this glyph is referring to.
Item_id	PRI	Int(10)	Foreign Key to Items table, to specify the object in question, actually representing the glyph stone.
Position		Tinyint(3)	Numeric indicator of ordering. This allows for a Spell Glyph sequence to be specified as a 3 glyph sequence such as "Fire/Hand/Water".



Conclusion

Hopefully this document will help explain the underlying capabilities of the database so that they can envision new directions and new features which the database can support easily. While the C++ classes will provide a much needed level of abstraction to this data model, it is important to know the underlying structure.