

Character information

hp

The character's hit points: this value will be set to zero before the round starts; it is decreased when the character is hit by its opponent. When the round is over, hp will be used in the calculation of both characters' scores.

energy

The character's energy: it will be set to zero before the round starts; it is increased when the character's skill hits the opponent or vice versa. Some skills require some amount of energy, so the energy will be consumed when such a skill is used.

x, y

The x, y coordinates of the character box's top-left corner when the character is facing right or the character box's top right corner when it is facing left. The coordinate origin lies at the top left of the stage. See also Figure 1 below.

left, right, top, bottom

Hit box boundaries. The positive direction of the x vector is right, and that of the y vector is down.

speedX, speedY

Character's moving speeds: the character's next-frame coordinates = the current coordinates + speeds.

front

The character's facing direction which skills and inputs follow. When it is true, the character is facing to the right, otherwise left.

state

The current state of the character; there are four types of states: stand, crouch, on air, and down.

action

Character's action; there are 5 types of actions: base, move, guard, recovery, and skill.

Base – Actions that are used in the normal status.			
STAND	CROUCH	AIR	
Move – Actions that can change the character's position.			
FORWARD_WALK	DASH	BACK_STEP	JUMP
FOR_JUMP	BACK_JUMP		
Guard – Actions that the character uses for protecting itself and reducing damage from the opponent.			
STAND_GUARD	CROUCH_GUARD	AIR_GUARD	
Recovery – Actions that arise when the character is hit or performs a landing.			
STAND_GUARD_RECOV	CROUCH_GUARD_RECOV	AIR_GUARD_RECOV	STAND_RECOV
CROUCH_RECOV	AIR_RECOV	CHANGE_DOWN	DOWN
RISE	LANDING	THROW_HIT	THROW_SUFFER
Skill – Actions that can generate attack objects such as a projectile (fire ball). These skills have 3 parts from start to the end: Startup, Active and Recovery.			
THROW_A	THROW_B	STAND_A	STAND_B
CROUCH_A	CROUCH_B	AIR_A	AIR_B
AIR_DA	AIR_DB	STAND_FA	STAND_FB
CROUCH_FA	CROUCH_FB	AIR_FA	AIR_FB
AIR_UA	AIR_UA	AIR_UB	STAND_D_DF_FA
STAND_D_DF_FB	STAND_F_D_DFA	STAND_F_D_DFB	STAND_D_DB_BA
STAND_D_DB_BB	AIR_D_DF_FA	AIR_D_DF_FB	AIR_F_D_DFA
AIR_F_D_DFB	AIR_D_DB_BA	AIR_D_DB_BB	STAND_D_DF_FC

control

Character's controllable flag; in most cases, when the character is in the uncontrollable state, the player's inputs will be neglected. When the character is performing a base, move or guard action, it will be controllable. And if the character is performing a recovery or skill action, it will be uncontrollable. A special case is if the current skill action is a cancelable skill, it will be controllable during its cancelable frames.

attack

Attack objects generated by skills; for all attack objects except projectiles, their data will be stored in this variable. For projectiles, their data will be stored in FrameData.Attack, because they leave the character once they are used.

remainingFrame

The current action's number of remaining frames; if a 60 frames action is used, remainingFrame will be started from 60, and decreased 1 per each frame until 0.

*FrameData Schematic

