Standard Colorization Schemes for Target Descriptions

Michael J. Gillich

U.S. Army Research Laboratory

Introduction

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- Benefits of Colorization
- Efforts to Conform to the Standards
- Recommended ARL Standards
- Methods for Coloring Targets
- K-Tank Example
- Colorization Demo

Definitions

- According to Webster, a standard is something set up and established by authority as a rule for the measure of quantity, weight, extent, value, or quality.
- Colorization is the process of adding color to a black and white image.

Benefits of Colorization

- Increases contrast of the images (for better viewing)
- Enhances understanding of the target information

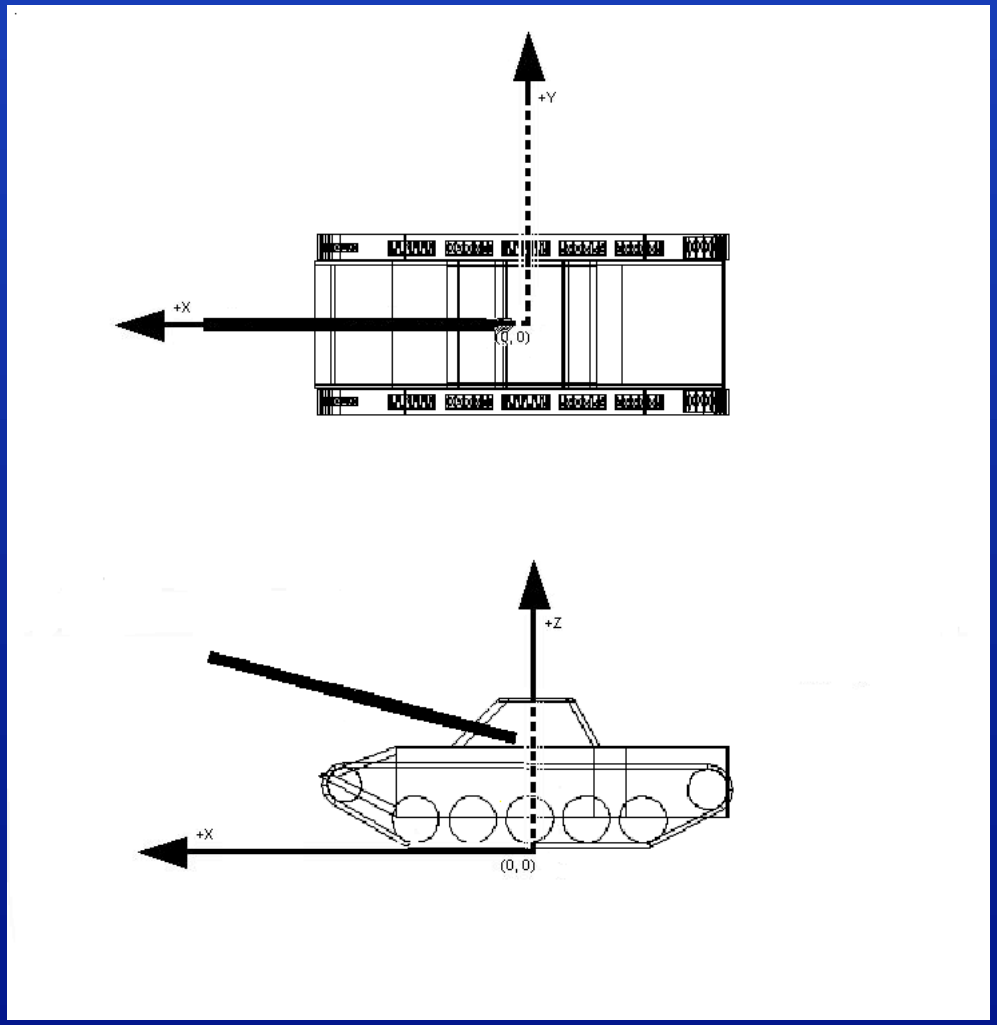
Efforts to Conform to Standards

ARL has developed Target Description Standards for Ballistic Survivability, Lethality and Vulnerability Analyses of Ground Mobile Vehicles and Rotary-Wing Aircraft.

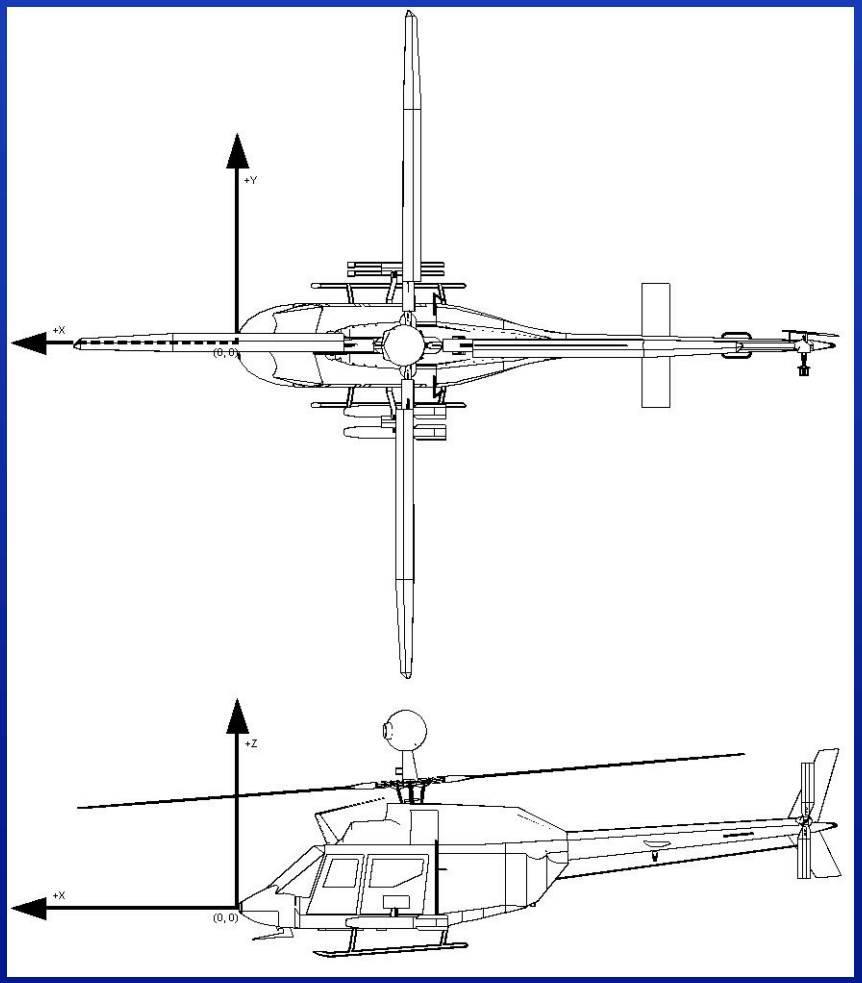
Recommended ARL Standards

- Orientation
- Hierarchy
- Colorization
- Materials

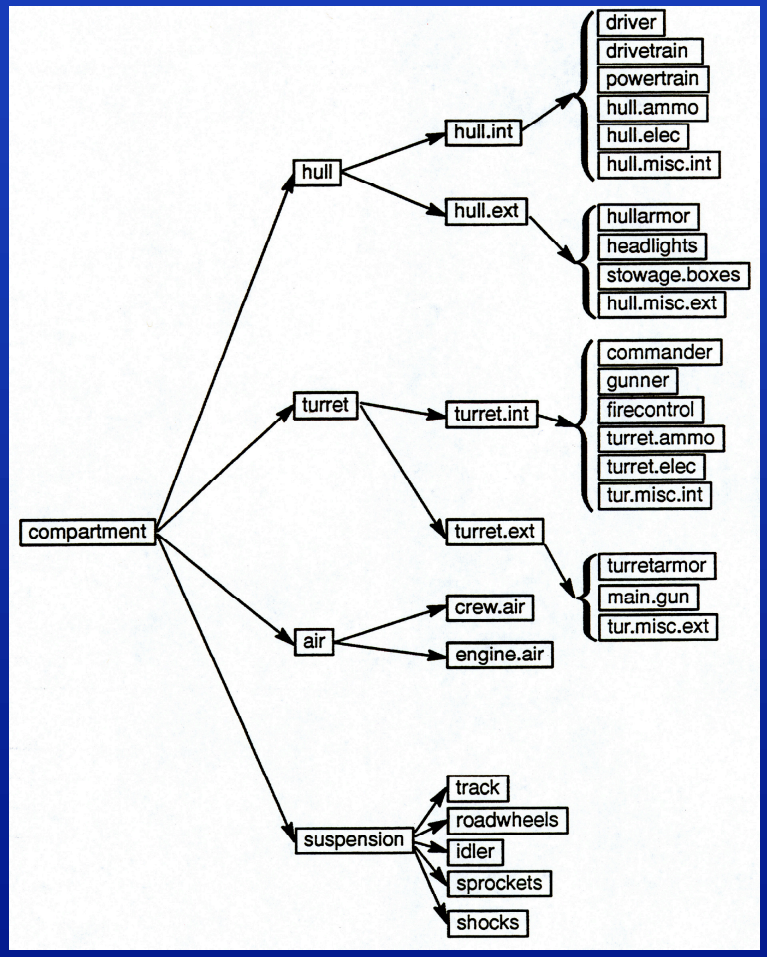
Orientation (Land System)



Orientation (Aircraft)



Hierarchy (Land System)



Colorization

Recommended Color Values for Differentiating Components

Ground Mobile	Aircraft	Color	RGB Value
Crew/Passenger	Crew/Passenger	TAN	200 150 100
Exterior Armor		GREY	80 80 80
Fuel System	Fuel	YELLOW	255 255 0
Armament (not ammunition)	Armament (not ammunition)	GREY	80 80 80
Propellant	Propellant	MAGENTA	255 0 255
Projectiles	Projectiles	RED	255 0 0
Engine		BLUE	0 0 255
Oil lines/hoses		LIGHT BROWN	159 159 95
Coolant lines/hoses		GREEN	0 255 0
Air lines/hoses		BLUE	0 0 255
Drive Train	Drive	CYAN	0 255 255
Driver Controls	Flight Controls	DARK BLUE	50 0 175
Suspension	Blades/Rotor control	GREY	80 80 80
Tracks		BROWN	104 56 30
Electrical		FOREST GREEN	50 145 20
Hydraulics	Hydraulics	PINK	255 145 145
Communications	MEP	LIME GREEN	50 204 50
Fire Control		PEACH	234 100 30
Fire Suppression		DARK RED	79 47 47
Miscellaneous	Miscellaneous	ORANGE	204 50 50

Materials

Standards are described in the BRL-CAD Target Description Standards guide.

REF: Target Description Standards for Ballistic Survivability, Lethality and Vulnerability Analyses of Ground Mobile Vehicles and Rotary-Wing Aircraft

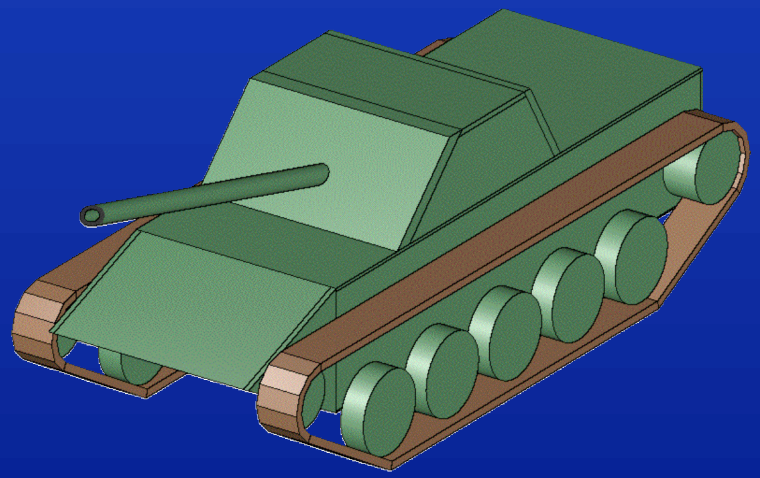
Methods for Coloring Targets

- Manual method
- Automated method (using the colorization tool)

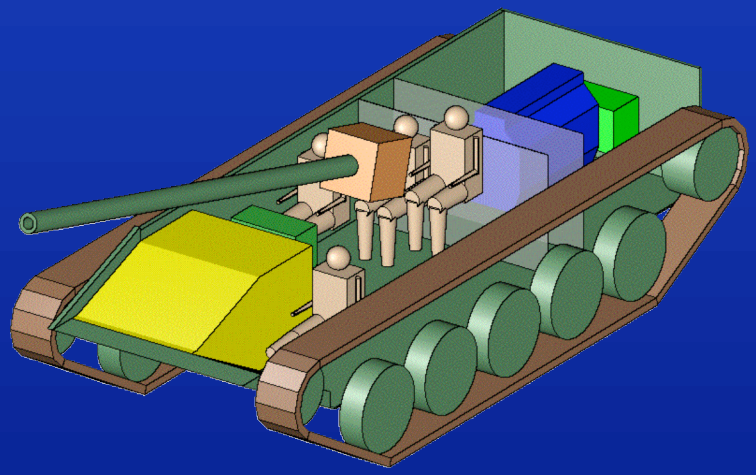
BRL-CAD Tools for Coloring

- MGED
- Combination editor
- Color editor
- RtEdge
- Colorizing tool
- RtWizard

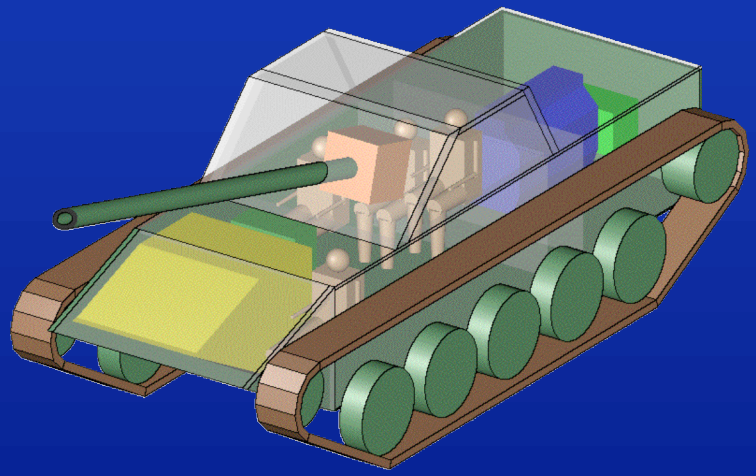
K-Tank Example
(Exterior)



K-Tank Example
(Interior)



K-Tank Example
(Target with Transparent Skin)



Colorization Demo