SOEN331: Introduction to Formal Methods

for Software Engineering

Assignment 4 on algebraic specifications

Author's name

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Spec: Location;

Sort: Location;

Imports: Boolean, $\mathbb{N}_0$;, String, Point

Operations:

    newLocation: String × Point → Location;

    setDescription: Location ×Description → Set;

    getDescription : Location → Description;

    setPoint : Location × Point → Location;

    getPoint : Location → Point;

Variables:

    description: String; point: Point;

Axioms:

    [A1] isempty(newset) = true;

    [A2] ismember(newset, x) = false;

    [A3] ismember(add(s, x), x) = true;

    [A4] add(add(s, x), y) = add(add(s, y), x);