

SOEN331: Introduction to Formal Methods
for Software Engineering

Assignment 2 on Object-Z specification

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1 Map

<i>Map</i>
$\uparrow (AddLocationOK, DeleteLocationOK, ModifyLocationOK, FindLocationOK)$
$annnotations : Point \rightarrow \mathbb{R}$
$\forall d1, d2 : dom\ annotations \bullet (annnotations(d1) = annnotations(d2)) \dashv\vdash d1 = d2$
<i>INIT</i>
$annotations = \emptyset$
<i>AddLocationOK</i>
$\Delta(annotations)$ $description? : Description$ $coordinate? : Point$
//addpreconditionandpostconditionhere
<i>DeleteLocationOK</i>
$\Delta(annotations)$ $who? : Description$
$who? \in dom\ annotations$ $annotations' = \{who\} \triangleleft annotations$
<i>ModifyLocationsOK</i>
$\Delta(annotations)$ $description? : Description$ $coordinates? : Point$