Compute-All-Extensions$(\mathcal{W}, \widehat{\mathcal{D}})$
begin
(1) if $\mathcal{W}$ is inconsistent
(2) then print "Inconsistent world description"
(3) else for all maximal subsets $\mathcal{D}'$ of $\widehat{\mathcal{D}}$ such that
$\mathcal{W} \cup Con(\mathcal{D}')$ is consistent
(4) do *Remove-Defaults*$(\mathcal{W}, \widehat{\mathcal{D}}, \mathcal{D}')$;
end

Remove-Defaults$(\mathcal{W}, \widehat{\mathcal{D}}, \mathcal{D}')$
begin
(1) let $\mathcal{D}_0$ be the largest subset of $\mathcal{D}'$ that is grounded in $\mathcal{W}$;
(2) if $\mathcal{W} \cup Con(\mathcal{D}_0) \models \neg\beta$ for some justification $\beta \in Jus(\mathcal{D}_0)$
(3) then let $d = \alpha : \beta/\gamma$ be the corresponding default;
(4) *Remove-Defaults*$(\mathcal{W}, \widehat{\mathcal{D}}, \mathcal{D}_0 \setminus \{d\})$;
(5) for all maximal subsets $\mathcal{D}''$ of $\mathcal{D}_0$ such that
$d \in \mathcal{D}''$ and $\mathcal{W} \cup Con(\mathcal{D}'') \not\models \neg\beta$
(6) do *Remove-Defaults*$(\mathcal{W}, \widehat{\mathcal{D}}, \mathcal{D}'')$;
(7) else if for each $\alpha : \beta/\gamma \in \widehat{\mathcal{D}} \setminus \mathcal{D}_0$ either $\mathcal{W} \cup Con(\mathcal{D}_0) \not\models \alpha$
(8) or $\mathcal{W} \cup Con(\mathcal{D}_0) \models \neg\beta$
(9) then add $\mathcal{D}_0$ to the list of sets of generating defaults;
end

Procedure for computing the sets of generating defaults of all extensions of the closed default theory $(\mathcal{W}, \widehat{\mathcal{D}})$**.**

Proviso: $\widehat{\mathcal{D}}$ and $\mathcal{W}$ finite and entailment in the base language is decidable.

More details can be found in

> Franz Baader and Bernhard Hollunder. Embedding defaults into terminological knowledge representation formalisms. *J. of Automated Reasoning*, 14:149–180, 1995.