

Cutting process update method to simulate the nuclear facility decommission

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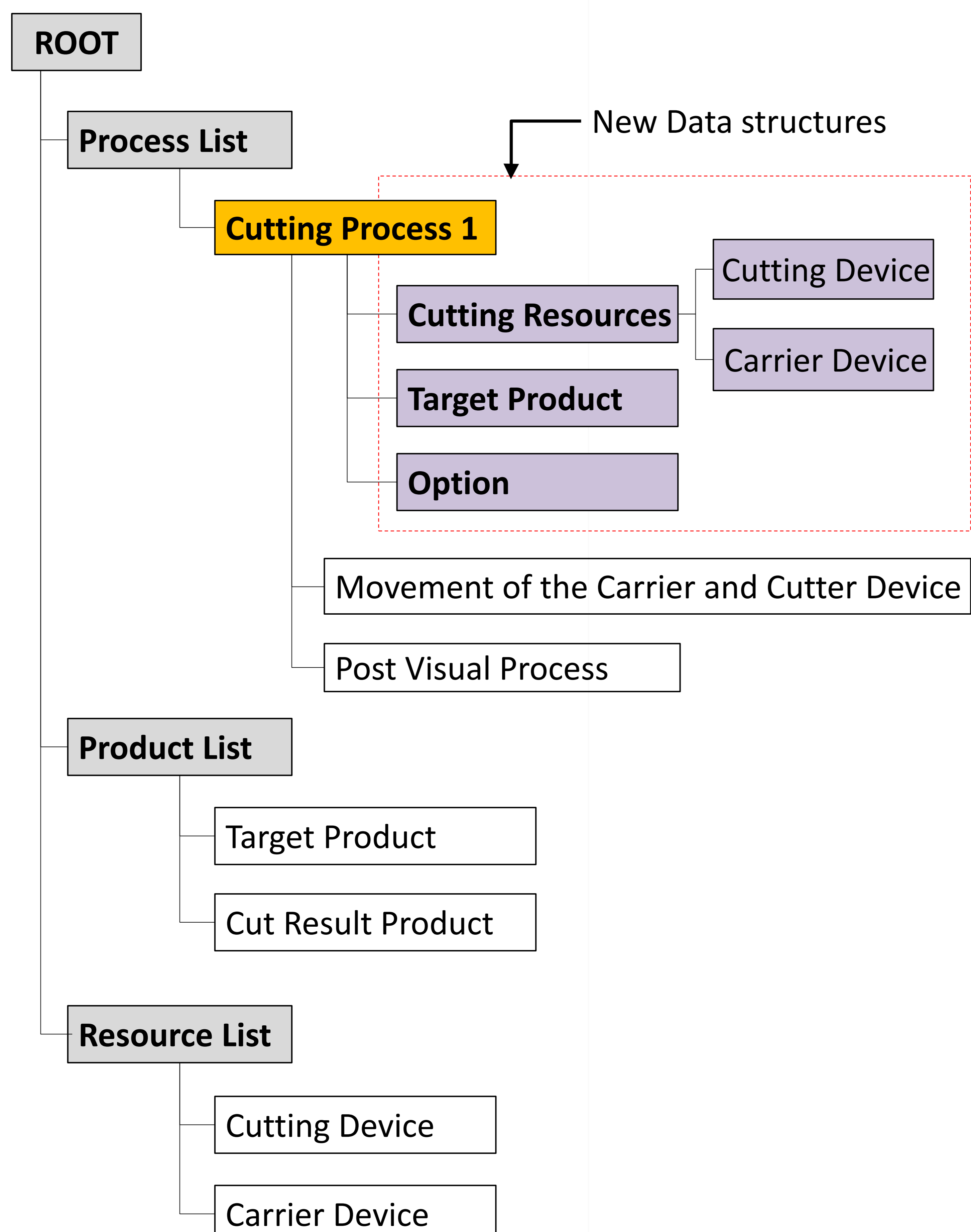
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1. Introduction

- In the previous study, we have developed the cutting simulation software framework to simulate the nuclear facility decommission
- Problems: Difficult to update the cutting process
 - ✓ Lack of remaining information of related device model and target model of the cutting
 - ✓ Need Process Update Methodology
- Cases to be Updated:
 - ✓ Carrier motion is changed
 - ✓ Target product is changed
- Solution:
 - ✓ Define the additional data structure to Cutting Process
 - ✓ Define the Cutting Process Update Methodology

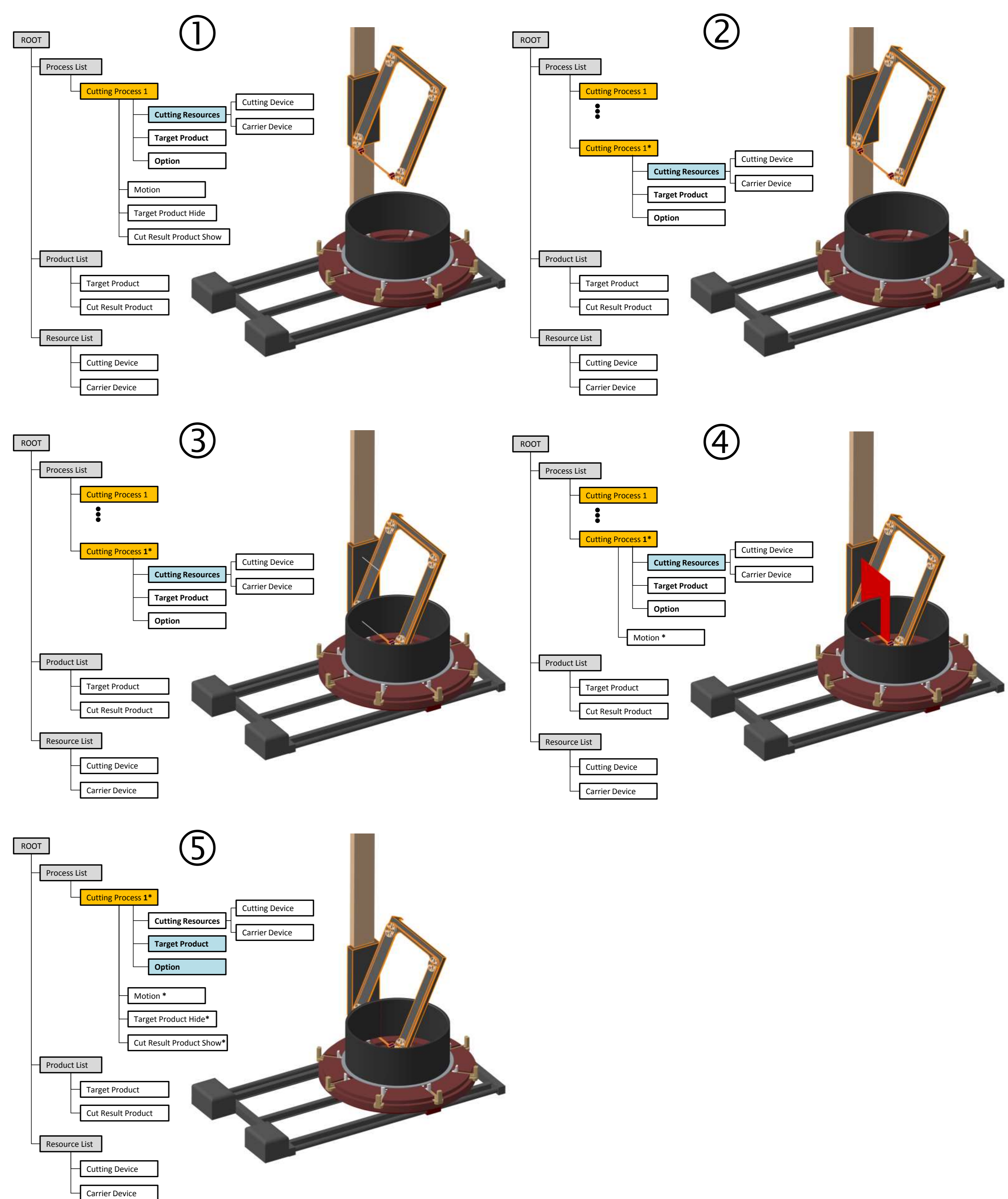
2. Data Structures

- Add new data structures under the Cutting Process as properties
 - ✓ Cutting Resource: Cutting and carrier device used in Cutting
 - ✓ Target Product: Target product for cutting
 - ✓ Option: Color and Post activities of Cutting



3. Cutting Process Update

- Copy source process and re-simulate cutting process
- ① Source Process
- ② Copy Cutting Process 1
- ③ Create Carrier Motion Based on Source Process
- ④ Create Cutting Volume based on Carrier Motion of ③
- ⑤ Cut Target Product using Cutting Volume and Create Post Visual Processes and delete Source Process



4. Conclusion

- Works Done
 - ✓ Proposed the cutting process update method in the cutting process simulation software
 - ✓ Define the new data structure to enable the cutting process update feature
 - ✓ Describe the general cutting process update scenario
- This method helps reducing the process modeling time when modeling the cutting process of the nuclear facility decommission