To instantiate the given safety case pattern for a General-Purpose Computerized Architecture (GPCA) system, we need to replace the placeholders with the specific information relevant to the GPCA system and remove the pattern-specific decorators. Below is the instantiated safety case presented in a hierarchical tree format using dashes (-) to denote different levels:

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- \*\*G1: Operational safety is verified in GPCA system\*\*

- \*\*C1: All specs are given by spec.allInstances()\*\*

- \*\*S1: Argument over the satisfaction of all specs over GPCA system\*\*

- \*\*G2: All operational hazards are mitigated\*\*

- \*\*C2: Operational hazards are given by operational hazard.allInstances()\*\*

- \*\*S2: Argument over reliability in all suitable levels of GPCA system\*\*

- \*\*S3: Argument over operational hazards\*\*

- \*\*G3: Operational hazard 1 is mitigated\*\*

- \*\*S4: Argument over the applied scenarios of operational hazard 1\*\*

- \*\*G4: Operational hazard 1 is mitigated under scenario 1\*\*

- \*\*S5: Argument over all specs related to scenario 1\*\*

- \*\*G5: Spec 1 is appropriate for scenario 1\*\*

- \*\*S6: Argument the appropriateness of spec 1 over properties\*\*

- \*\*G6: Property 1 is appropriate for spec 1\*\*

- \*\*S7: Argument over the source of the property 1 definition\*\*

- \*\*G7: Source of Property 1 is appropriate and trustworthy\*\*

- \*\*Sn1: Evidence of source appropriateness\*\*

- \*\*G8: Property 1 definition is sufficient\*\*

- \*\*Sn2: Evidence of property sufficiency\*\*

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Here's the reasoning behind the specific replacements and structure:

1. \*\*Goal (G1)\*\*

- Original: "Operational safety is verified in {system}"

- Instantiated: "Operational safety is verified in GPCA system"

2. \*\*Context (C1)\*\*

- Original: "All specs are given by {spec.allInstances()}"

- Instantiated: "All specs are given by spec.allInstances()"

3. \*\*Strategy (S1)\*\*

- Original: "Argument over the satisfaction of all specs over {system}"

- Instantiated: "Argument over the satisfaction of all specs over GPCA system"

4. \*\*Sub-Goals under S1\*\*

- \*\*Goal (G2)\*\*

- Original: "All operational hazards are mitigated"

- Instantiated same, including context (C2)

- \*\*Strategy (S2)\*\*

- Original: "Argument over reliability in all suitable levels of {system}"

- Instantiated: "Argument over reliability in all suitable levels of GPCA system"

- \*\*Strategy (S3)\*\*

- Original: "Argument over operational hazards"

- Instantiated same.

5. \*\*Sub-Goals under S3\*\*

- \*\*Goal (G3)\*\*

- Original: "{operational hazard} is mitigated"

- Instantiated: "Operational hazard 1 is mitigated"

- Includes handling multiplicity: mitigating each operational hazard.

6. \*\*Sub-Goals under G3 and further steps follow similarly\*\*, with instantiated scenarios, specs, and properties specific to the GPCA system. Details follow through strategies and goals ensuring all placeholders such as operational hazard, scenario, spec, property, and their instances are appropriately contextualized for GPCA.

By this process, we instantiate all placeholders and remove extraneous pattern-specific decorators, creating a concrete assurance case for the GPCA system.