To create a security case for ACAS Xu using the given goal structure and predicates, and display it in a hierarchical tree format, I'll instantiate and develop the placeholders in the predicate rules, and describe how it would look for ACAS Xu:

### ACAS Xu Security Case

- \*\*Goal (G0)\*\*: ACAS Xu satisfies security requirements

- \*\*Context (C0)\*\*: Description of ACAS Xu

- \*\*Context (C1)\*\*: Security requirements are requirements about protecting the system from malicious entities

- \*\*Justification (J0)\*\*: The argumentation is based on satisfaction of Security Requirements

- \*\*Assumption (A0)\*\*: ACAS Xu SRS are complete, adequate, and consistent

- \*\*Strategy (S0)\*\*: Argue through asset protection and secure development requirements

- \*\*Goal (G1)\*\*: ACAS Xu satisfies the asset protection requirements

- \*\*Assumption (A1)\*\*: Asset inventory is established

- \*\*Strategy (S1)\*\*: Argue through the different stages of the system development life cycle

- \*\*Goal (G3)\*\*: Asset protection requirements are met during the architecture design phase

- \*\*Context (C2)\*\*: Description of the ACAS Xu architecture

- \*\*Strategy (S2)\*\*: Argue through derivating security threats from SRs

- \*\*Justification (J1)\*\*: Detection and mitigation of threats fulfill SRs

- \*\*Goal (G5)\*\*: ACAS Xu architecture is protected against identified security threats (STs)

- \*\*Assumption (A2)\*\*: All relevant threats have been identified

- \*\*Strategy (S3)\*\*: Argue over each security threat

- \*\*Undeveloped Goal (G0.X)\*\*: ACAS Xu architecture is protected against STX

- \*\*Undeveloped Goal (G6)\*\*: ACAS Xu architecture is validated

- \*\*Context (C3)\*\*: Description of ACAS Xu architecture model

- \*\*Assumption (A3)\*\*: ACAS Xu architecture model is well defined in {formal method}

- \*\*Undeveloped Goal (G4)\*\*: Asset protection requirements are met during other phases

- \*\*Undeveloped Goal (G2)\*\*: ACAS Xu satisfies secure development requirements

This hierarchical tree structure provides a comprehensive outline of how each strategy and goal supports the high-level security requirements of ACAS Xu. Note that some elements have been left undeveloped (G4, G2, G6) or are marked with undeveloped placeholders (G0.X), which would need to be addressed for a complete and detailed assurance case. Each element (e.g., goals, strategies, contexts, justifications, assumptions) connects logically according to the support and context relationships defined in your predicates, providing a clear mapping of how the security case for ACAS Xu is structured and developed.