

TRIPLE Pseudocode Prototypes

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MODULE TRIPLE_Main
  CONSTANT MAX_TRIPL_LENGTH ← 1024

  PROCEDURE InitializeSession(DeviceA, DeviceB)
    seedArray ← LoadSeedData()
    TRIPL ← []
    FOR i FROM 0 TO MAX_TRIPL_LENGTH - 1 DO
      value ← GeneratePointer(seedArray, i)
      TRIPL.ADD(value)
    END FOR
    StoreTRIPL(TRIPL) // Enables session continuation
    RETURN TRIPL
  END PROCEDURE

  PROCEDURE EncryptMessage(message, TRIPL)
    encrypted ← []
    FOR EACH char IN message DO
      index ← MapCharToIndex(char)
      pointer ← TRIPL[index]
      encrypted.ADD(pointer)
    END FOR
    RETURN encrypted
  END PROCEDURE

  PROCEDURE DecryptMessage(encrypted, TRIPL)
    message ← []
    FOR EACH pointer IN encrypted DO
      char ← ReverseMap(TRIPL, pointer)
      message.ADD(char)
    END FOR
    RETURN message
  END PROCEDURE

  PROCEDURE CheckResetTimer()
    IF SessionExpired() THEN
      TRIPL ← InitializeSession(DeviceA, DeviceB)
    ELSE
      RotatePointers(TRIPL)
    END IF
  END PROCEDURE
END MODULE
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MODULE TRIPL_Main
  PROCEDURE StartSession(DeviceA, DeviceB)
    TRIPL ← []
    seedArray ← LoadSeedData()

    FOR i FROM 1 TO MAX_TRIPL_LENGTH DO
      value ← GetRandomPointer(seedArray)
      ExchangeValue(DeviceA, DeviceB, value)
      TRIPL.ADD(value)
    END FOR
    RETURN TRIPL
  END PROCEDURE

  PROCEDURE EncryptMessage(message, TRIPL)
    encrypted ← []
    FOR EACH char IN message DO
      pointer ← LookupPointer(TRIPL, char)
      encrypted.ADD(pointer)
    END FOR
    RETURN encrypted
  END PROCEDURE

  PROCEDURE DecryptMessage(encrypted, TRIPL)
    message ← []
    FOR EACH pointer IN encrypted DO
      char ← ReverseLookup(TRIPL, pointer)
      message.ADD(char)
    END FOR
    RETURN message
  END PROCEDURE
END MODULE

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