

Celebrating 50 Years of NonStop

Tandem Reunion Texas 2024



That was the first 50 years of NonStop



NonStop Transformation with TICSoftware in 2025

Phil Ly





TIC Software 2025 Goals

1 Revolutionize NonStop Interaction

Provide AI-driven tools to extract, organize, and deliver actionable knowledge.

2 Drive Innovation

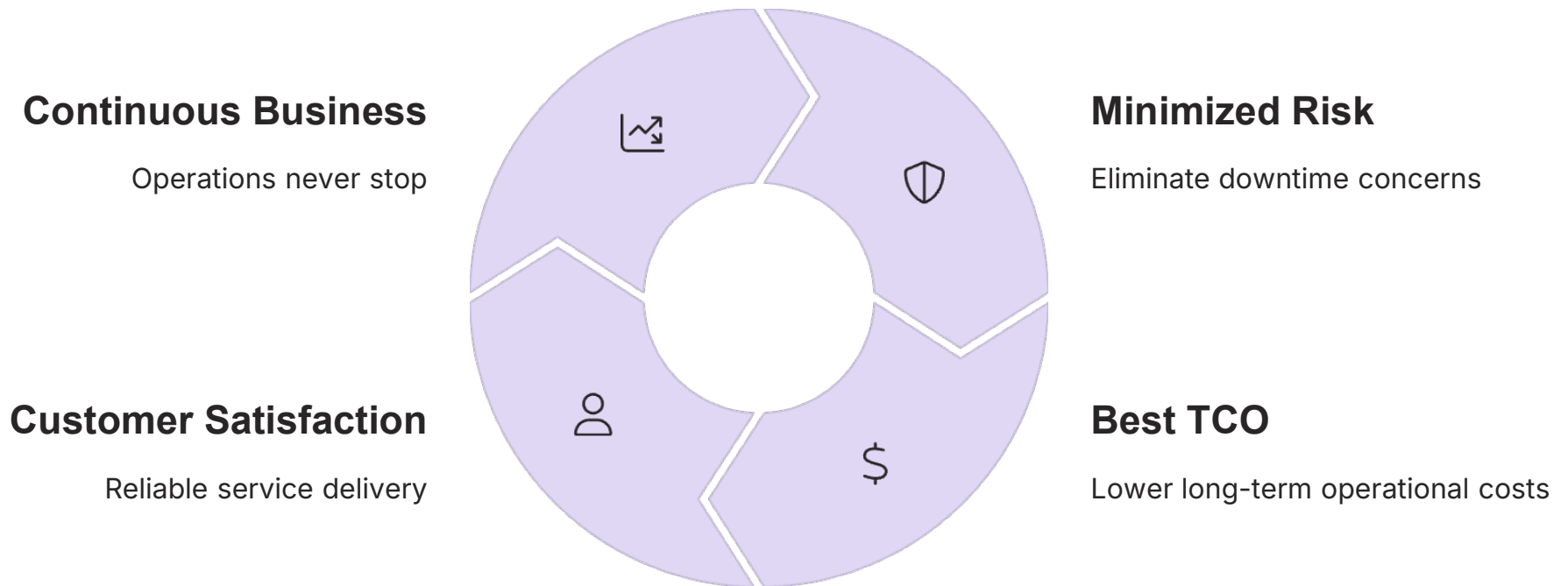
Empower organizations to leverage their NonStop systems more effectively via innovation and modernization.

3 Reduce Expert Dependency

Mitigate risks associated with retiring experts through knowledge preservation.

Why HPE NonStop Server?

Best Business Value Proposition



Challenges

Resource Scarcity

Limited availability of new NonStop-trained professionals. Experienced developers are retiring, creating a knowledge gap.

Knowledge Loss

Lack of understanding of program business logic. Unclear history and rationale behind design decisions.

Modernization Challenges

Difficulties in migrating to modern technologies without application knowledge



What Does ChatGPT Stand For?

Chat

Indicates the conversational, interactive nature of the system.

G

Stands for "Generative" - creates new content rather than retrieving existing information.

P

Means "Pre-trained" - the model was trained on vast amounts of text data.

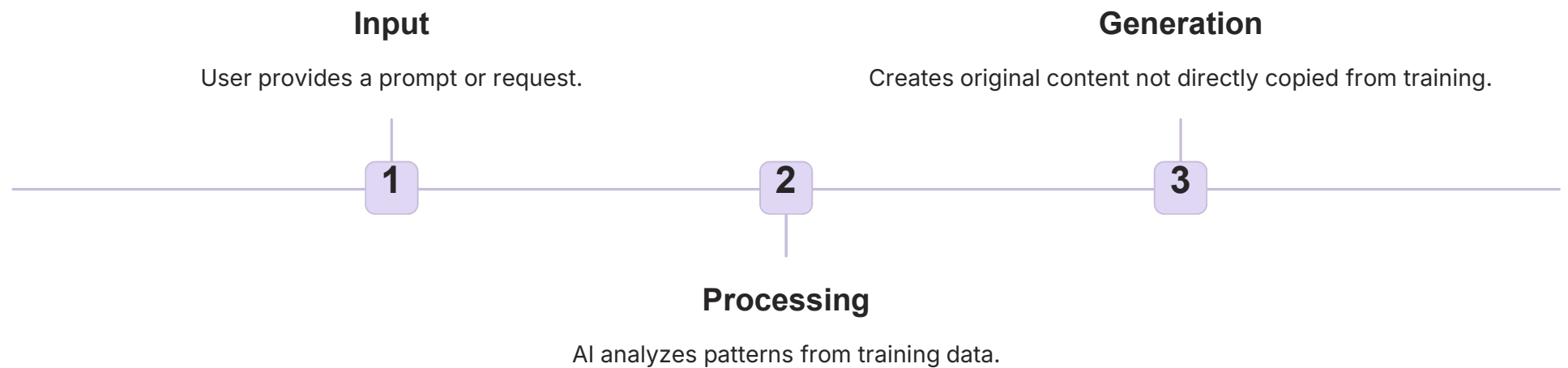
T

Represents "Transformer" - the neural network architecture that powers the system.





What is GenAI?



Generative AI creates new content—text, images, or video—using trained models.

Common GenAI Use Cases

Code Development

Writing, debugging, and explaining code in various languages

Language Services

Translating content and teaching language skills



Content Creation

Generating blogs, social media, and marketing materials

Document Processing

Summarizing documents, transcripts, and research papers

Customer Service

Powering AI chatbots and automated support systems

TIC Software's GenAI Strategy



Modernize Applications

Transform NonStop interfaces using AI-powered solutions.



Automate Support

Streamline workflows and ticket resolution with AI assistance.



Build Knowledge Base

Create robust information repositories with generative tools.



Empower Users

Enable customers to accomplish more on the NonStop platform.



TICSoftware.Ai Navigator: Enhancing NonStop Systems

Discover how our tools leverage AI technology to drive NonStop modernization and efficient knowledge management.



Future-Proofing NonStop with GenAI

1 Accessible Training

Make comprehensive training readily available to bridge the skills gap.

2 Program Documentation

Automatically generate detailed documentation for old applications.

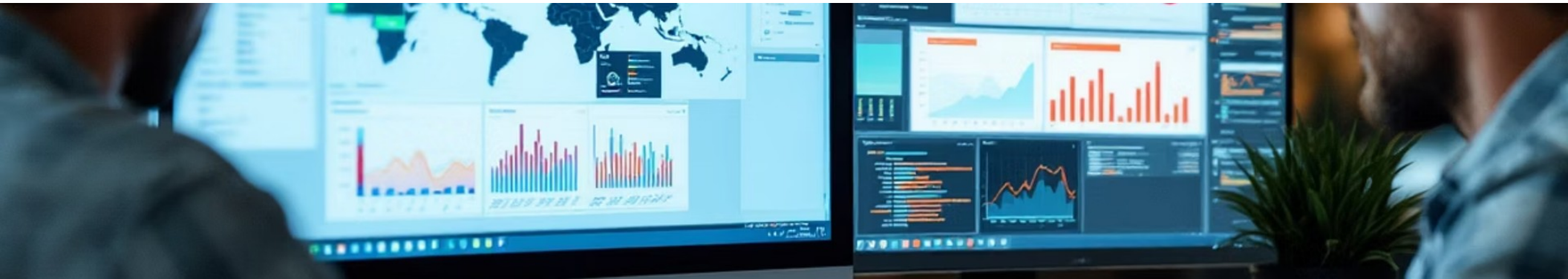
3 Developer Assistance

Provide AI-powered analysis assistance for developers to enhance productivity.

4 Centralized Knowledge

Create a comprehensive knowledge database for easy access to critical information.





Navigator Core Offerings

Code Navigator

Extracts business logic provides program analysis, and interactive visualizations to produce codebase documentation.

Knowledge Navigator

User-friendly tool for creating custom RAG pipelines with document processing.

Training Navigator

Accelerates onboarding with materials, diagrams and AI-driven training modules.

NextGen Navigator

Supports modernization and optimization of NonStop systems.

Navigator Benefits

Business Rule Extraction

Automatically captures complex business logic

NonStop System Focus

Deep expertise in COBOL/TAL/C/TACL, HPE NonStop ecosystems

Interactive Visualizations

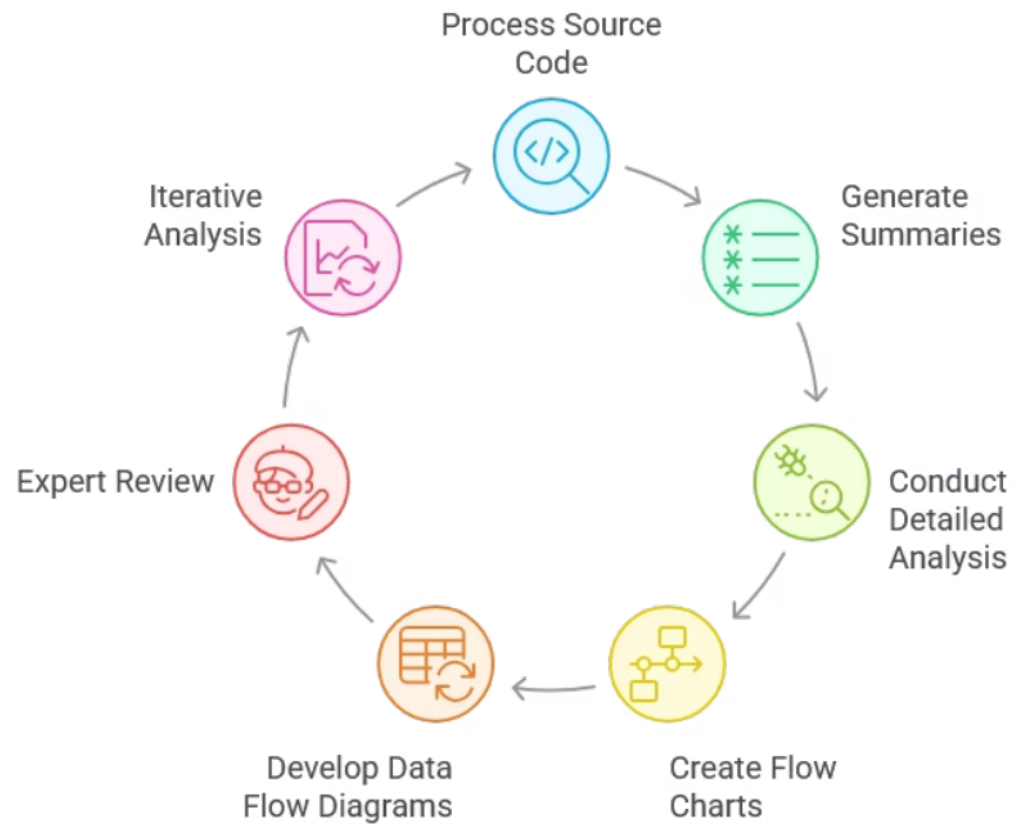
Rich, contextual Seamlessly connects historical and operational metadata

Developer Onboarding

Accelerates learning with intelligent knowledge transfer



Our Navigator Expert Team Gives You the Most Accurate Output



Navigator Documentation TAL Program

Single Sign-On Web Service - Business Rules

1. REQUEST VALIDATION RULES

BR-001: Request Code Validation Rule

Rule Type: Constraint

Business Rule: Request codes must be within predefined service operation range

Formal Expression:

$RQ-CODE \in \{10, 20, 30, 40, 99\}$

Natural Language: Only request codes 10 (Get Username), 20 (Connect), 30 (Disconnect), 40 (Check), and 99 (Health Check) are valid

Violation Response: Return error code 99 with message "INVALID REQUEST-CODE"

Business Justification: Ensures only supported operations are processed

Authority: Single Sign-On Service Interface Specification

BR-002: Employee ID Mandatory Rule for Username Lookup

Rule Type: Precondition

Business Rule: Employee ID is required for username retrieval operations

Formal Expression:

IF $RQ-CODE = 10$ THEN $RQ-EMPLOYEE-ID \neq 0$

Natural Language: Request code 10 (Get Username) requires a non-zero employee ID

Violation Response: Set FAILURE flag and return "MISSING EMPLOYEE-ID"

Business Justification: Employee ID is the primary key for user lookup

Authority: Human Resources Data Standards

BR-003: IP Address Mandatory Rule for Connection Operations

Rule Type: Precondition

Business Rule: IP Address is required for connect and disconnect operations

Formal Expression:

IF $RQ-CODE \in \{20, 30\}$ THEN $RQ-IP-ADDRESS \neq \text{SPACES}$

Natural Language: Connect and Disconnect operations require a valid IP address

Violation Response: Return error code 99 with "MISSING IP-ADDRESS"

Business Justification: IP address identifies the client terminal location

Authority: Network Security Requirements

Navigator Documentation COBOL Program

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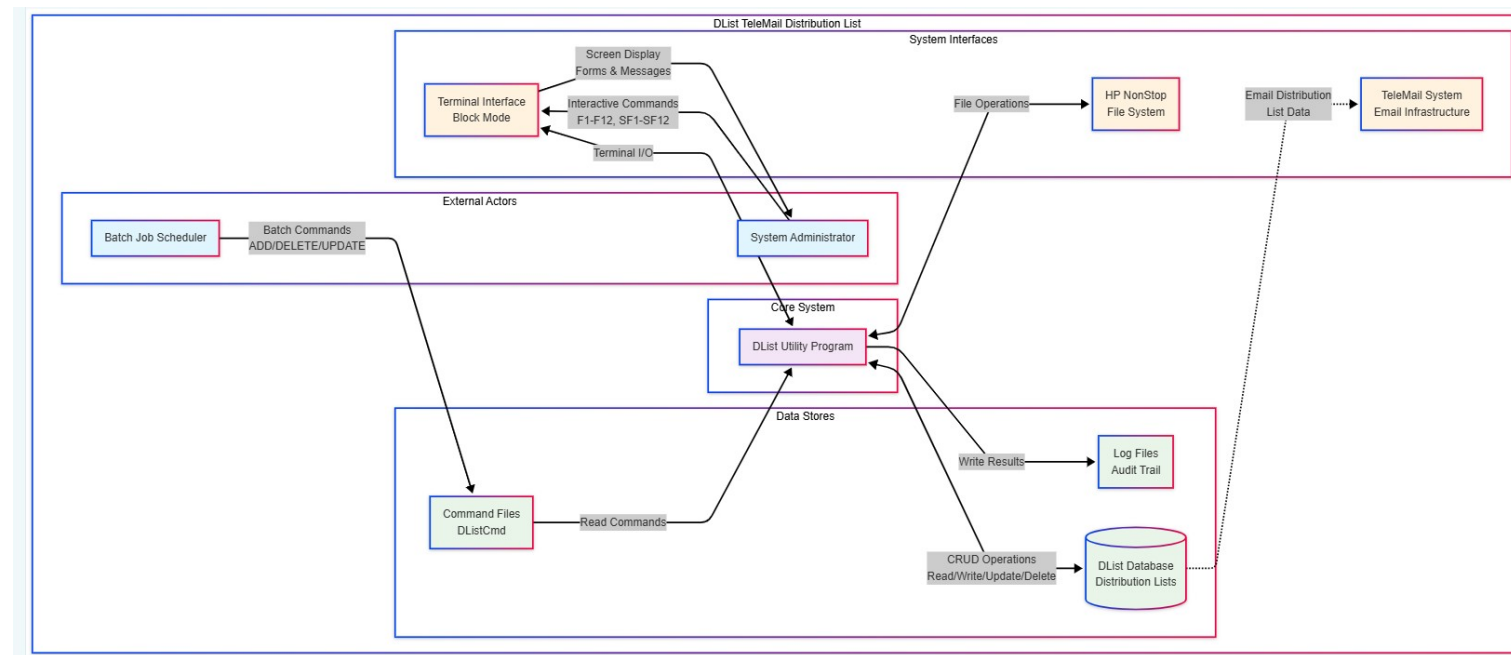
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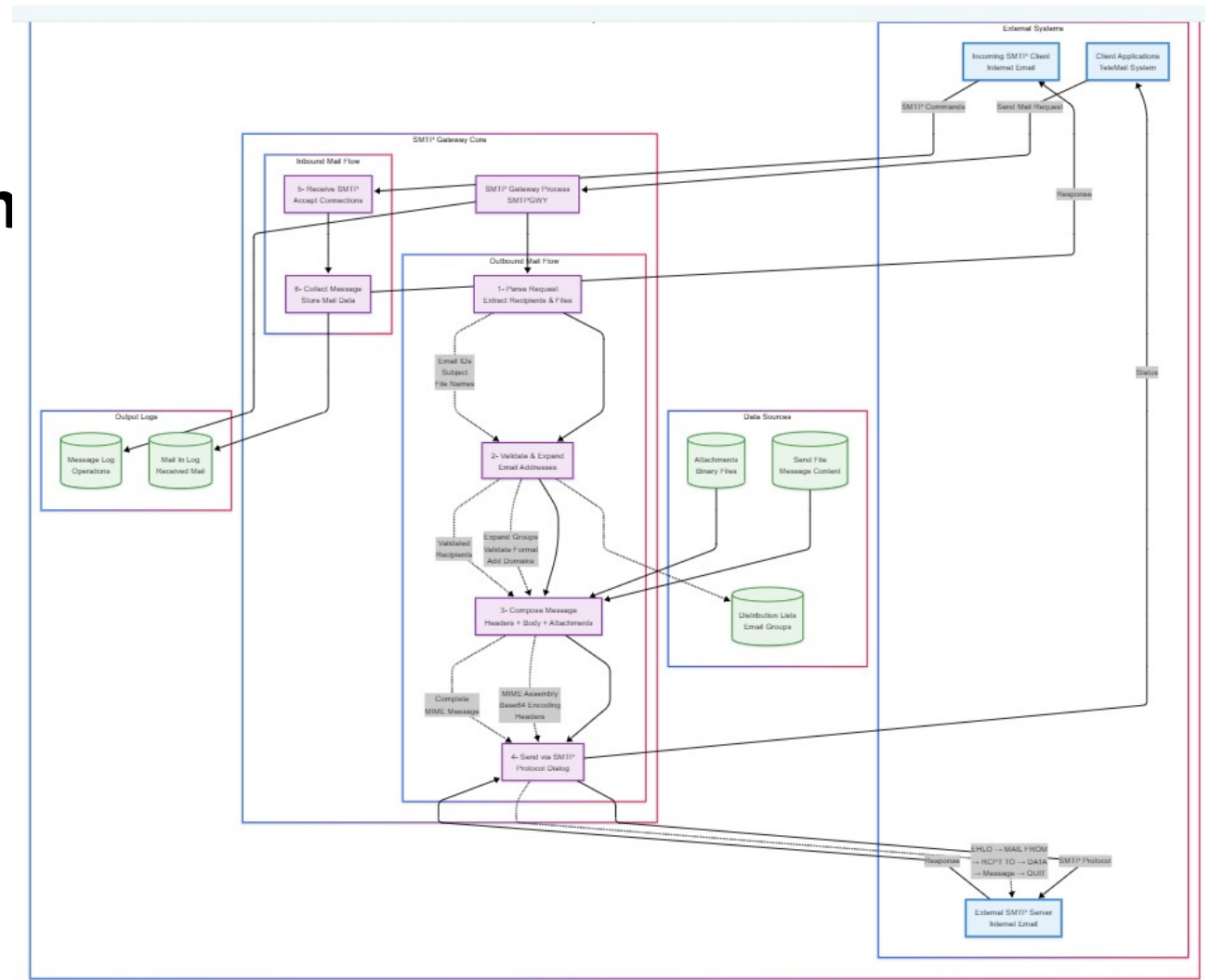
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Navigator Architecture Diagram TAL Program



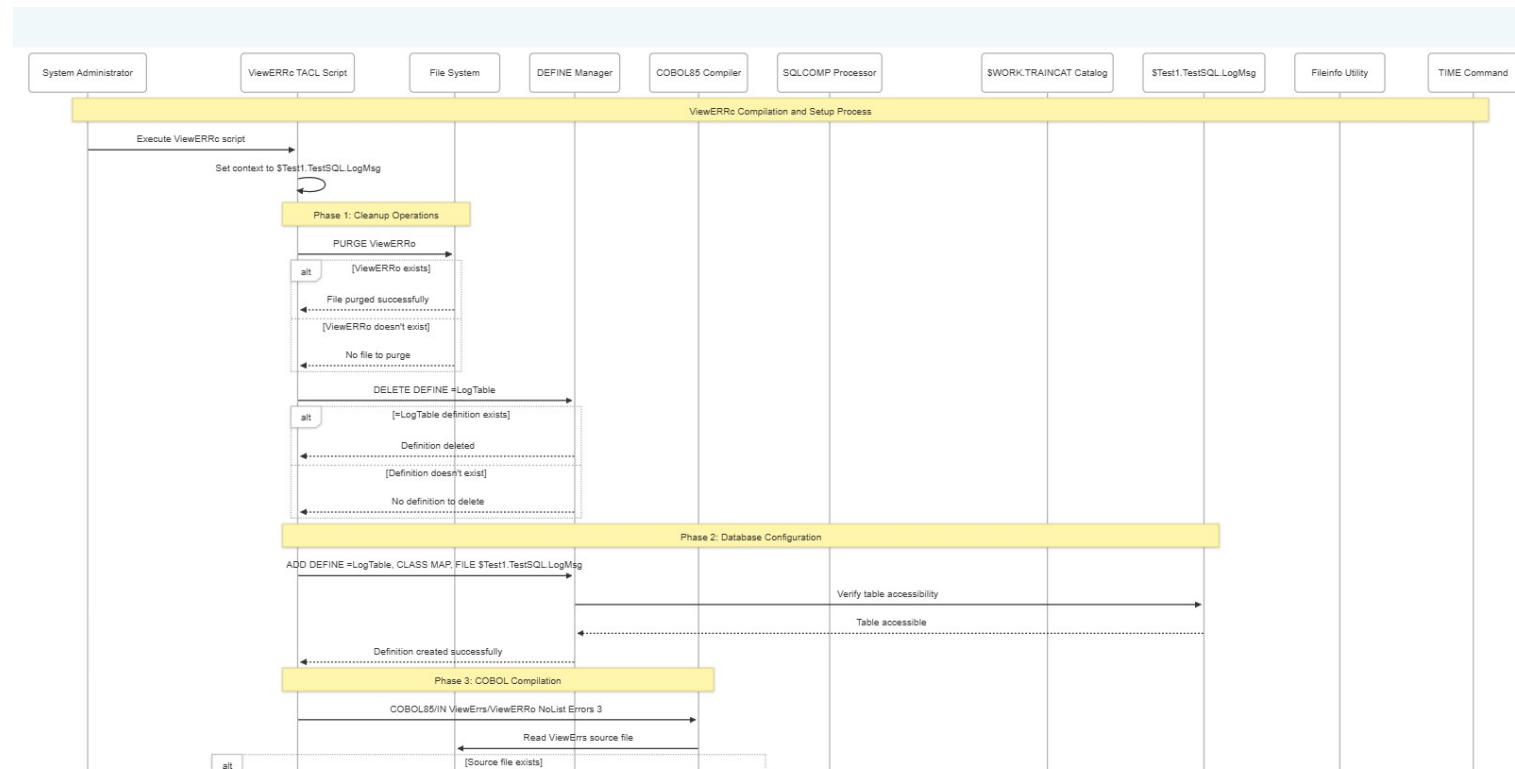
Navigator Data Flow Diagram C Program



Navigator

Sequence Diagram

TACL Macro





Training Solutions



Fast Path Training

On-demand, just-in-time training.
Personalized and self-service
options available.

Multi-language support
(Japanese, Spanish, others)



Comprehensive Topics

NonStop Products (Pathway,
Performance, COBOL).

Customer training

Internal Projects
3rd Party Products.

NonStop AI Training



start



HPE NonStop Server Pathway Tutorial

Welcome to the HPE NonStop Server Pathway Tutorial! This comprehensive guide will help you understand the Pathway product, which is a critical component for transaction processing on HPE NonStop systems.

Menu of Topics:

1. Introduction to Pathway
2. Pathway Architecture and Components
3. Starting and Configuring a Pathway System
4. Managing Pathway Objects
5. Pathway Operations
6. Server Classes and Server Processes
7. Terminal Control Processes (TCPs)
8. SCREEN COBOL and Requesters
9. Pathway System Monitoring and Troubleshooting
10. Advanced Pathway Configuration and Management

Please enter a number (1-10) to begin with a specific topic, or simply enter "1" to start from the beginning.

Type your message here:



NonStop AI Training



start in spanish



Tutorial de HPE NonStop Server Pathway

Bienvenido al tutorial de HPE NonStop Server Pathway! Este tutorial est diseñado para ayudarte a comprender el producto Pathway, una herramienta fundamental para el desarrollo de aplicaciones de procesamiento de transacciones en Inea (OLTP) en sistemas HPE NonStop. Te gustara continuar en espaol o prefieres cambiar a ingls para el resto del tutorial?

Para continuar en inglés, por favor escribe "English". Para continuar en español, por favor escribe "Español".



espanol



Tutorial de HPE NonStop Server Pathway

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Men de Temas

1. Introduccin a Pathway
2. Operaciones de Pathway
3. Estableciendo una Configuración Inicial de Pathway
4. Refinando tu Configuración de Pathway
5. Administración y Mantenimiento de un Sistema Pathway
6. Gestión de Aplicaciones
7. Seguridad en Pathway
8. Comunicación entre Sistemas Pathway
9. Monitoreo de TCPs y Terminales

Type your message here:



Value Proposition

Development Management

Enhanced training programs to onboard new developers. Powerful analysis tools for improved coding efficiency.





Code Navigator

+ New Chat

Uploaded Files

Clear All

pkprtfcs.txt



Analyze Program
Business Function



Generate Diagrams
Program Structure



Error Handling
Recovery Procedures



Business Rules
Processing Logic



Files/Tables
Data Characteristics



Data Validation
Rules/Procedures

Ask me anything...



PKPRTFCS Program Analysis

FILE: pkprtfcs.txt

Business Objectives

This program serves as a server to perform PICK and PRINT functions within the order processing system. It handles the picking process for parts orders, updates inventory, manages back orders, and generates pick tickets and packing lists.

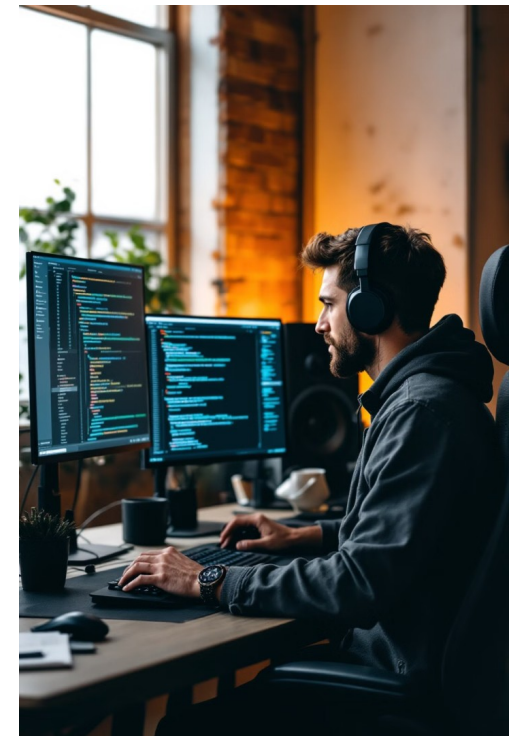
Business Functions Description

PKPRTFCS is a critical component in the order fulfillment process that:

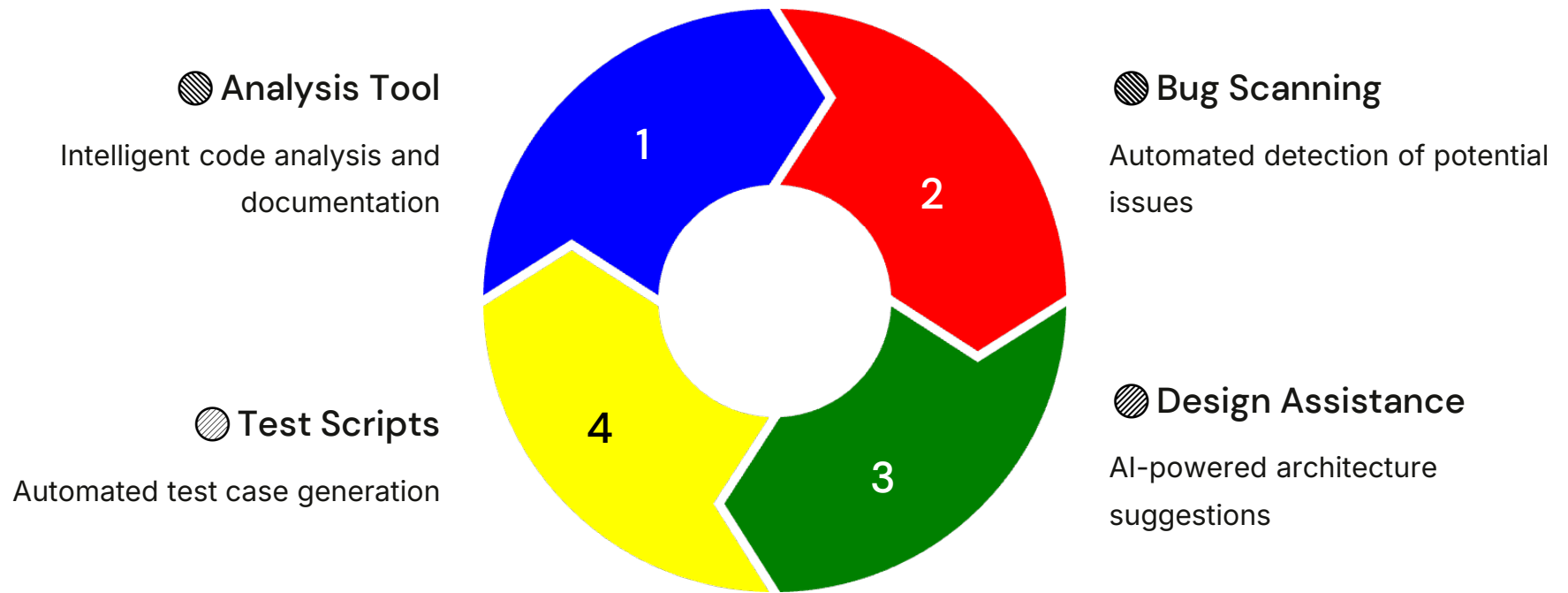
1. Processes pick and print requests for parts orders
2. Updates inventory levels when parts are picked
3. Manages back order creation when items are unavailable
4. Handles credit approval processes for customer orders
5. Generates appropriate documentation (pick tickets, packing lists)
6. Supports special handling for different order types (cash sales, credit card orders, etc.)
7. Interfaces with multiple other systems including credit authorization, tax calculation, and inventory management

Key Business Rules and Requirements

1. ****Order Processing Rules**:**
 - Orders must be locked before processing to prevent concurrent modifications
 - Orders with "force closed" status follow special handling procedures



GenAI Developer Assistance



Value Proposition

Operations Management

Effective training and support knowledge base.

Optimized operations for greater reliability.



Support Capabilities

1

Knowledge Base

Access a comprehensive knowledge base for quick answers.

2

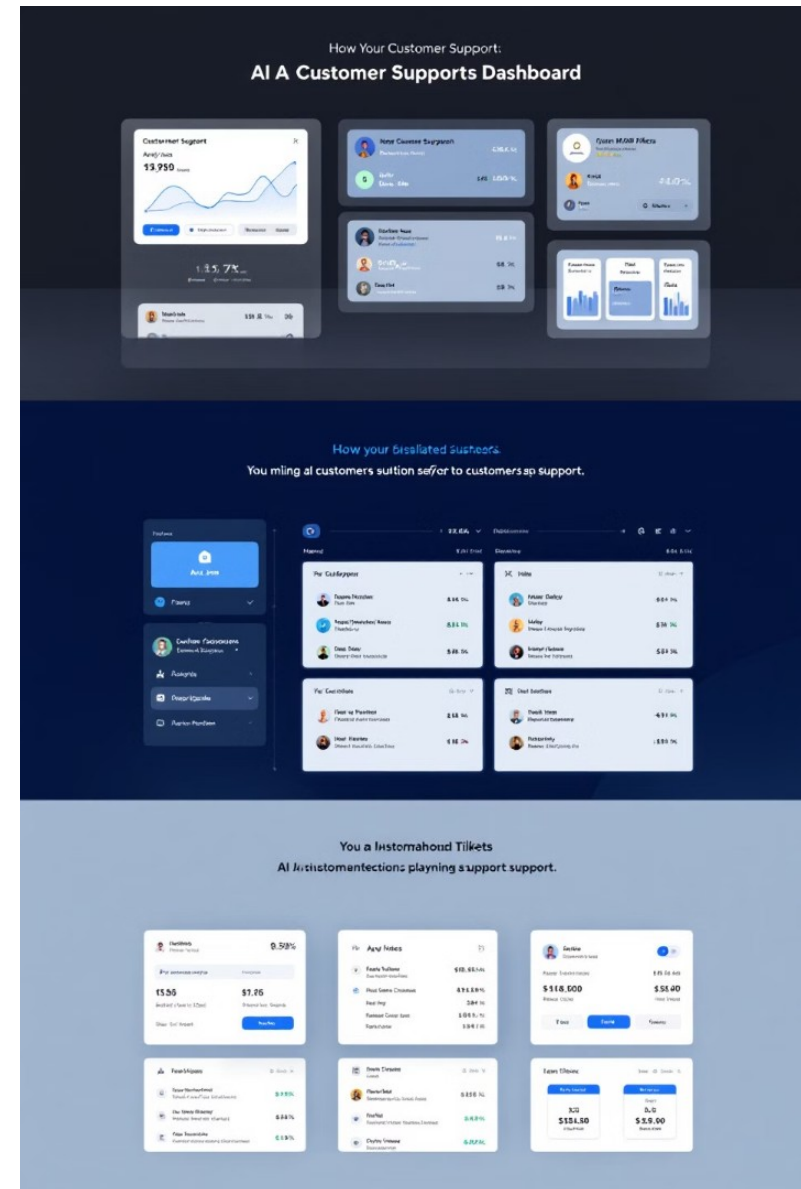
Support Tickets

Efficiently manage and resolve support tickets.

3

Design Documents

Easily retrieve and reference design documents.



Building Your Knowledge Base using AI and RAG

1 Identify Relevant Sources

Select documents that contain valuable information for your use case.

2 Preprocess Content

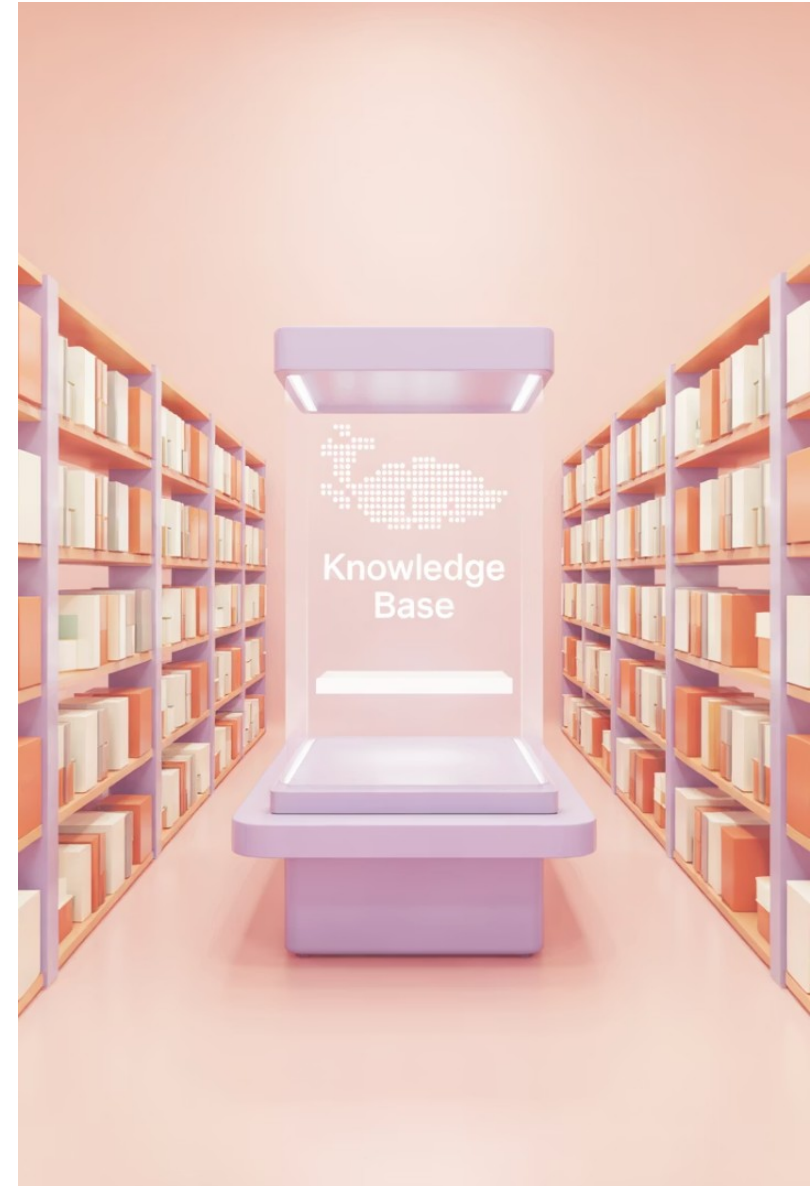
Clean, normalize, and structure the data for effective retrieval.

3 Chunk Documents

Split into smaller, meaningful segments for more precise retrieval.

4 Generate Embeddings

Create vector representations of each chunk for similarity search.



TIC Software.Ai Offerings

1

Navigator Products

Application documentation and program analysis.

2

Modernization Services

Comprehensive modernization solutions. Tailored to your specific NonStop environment. Workshops, POCs, and training programs.

3

Customization

Customize RAG and fine-tuning to meet customers' unique needs.



Why TICSoftware.Ai?



LLM Expertise

We select the right LLM for each specific task.



Optimized Prompts

Our prompts are fine-tuned for maximum performance.



NonStop Expertise

Extensive knowledge of NonStop systems and application development.



Actionable Insights

We produce information that enhances your knowledge base.

Transforming NonStop in 2025

Value Proposition

Code maintainability for long-term support.

Streamlined modernization.

Leverage NonStop reliability and best TCO.

TIC Software and GenAI





Let's Shape the Future Together

Schedule Consultation

Connect with our specialists to discuss your specific NonStop documentation challenges.

Custom Demo

See how GenAI Documentation works with your actual legacy code samples.

Implementation Plan

Receive a tailored roadmap for preserving and leveraging your valuable NonStop knowledge.

Unlock your legacy system's potential with TIC Software's GenAI Documentation. Contact us today to start empowering innovation for your NonStop environment.

Request Demo

<https://TICSOFTWARE.AI>

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