INNOVATIVE TECHNOLOGY SOLUTIONS

Unit 9

Loftware and TranPrint Configuration

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TranPrint Service

- Windows NT Service
- Socket base printing solution that uses TCPIP based printers
  - Allows high performance printing platform that Loftware offers in the Premier version of LPS
- Polls FD3N920 table for new print records
  - Records inserted via TranPrint Record Queuer
  - Table can be DB2 AS400, SQL Server or Oracle

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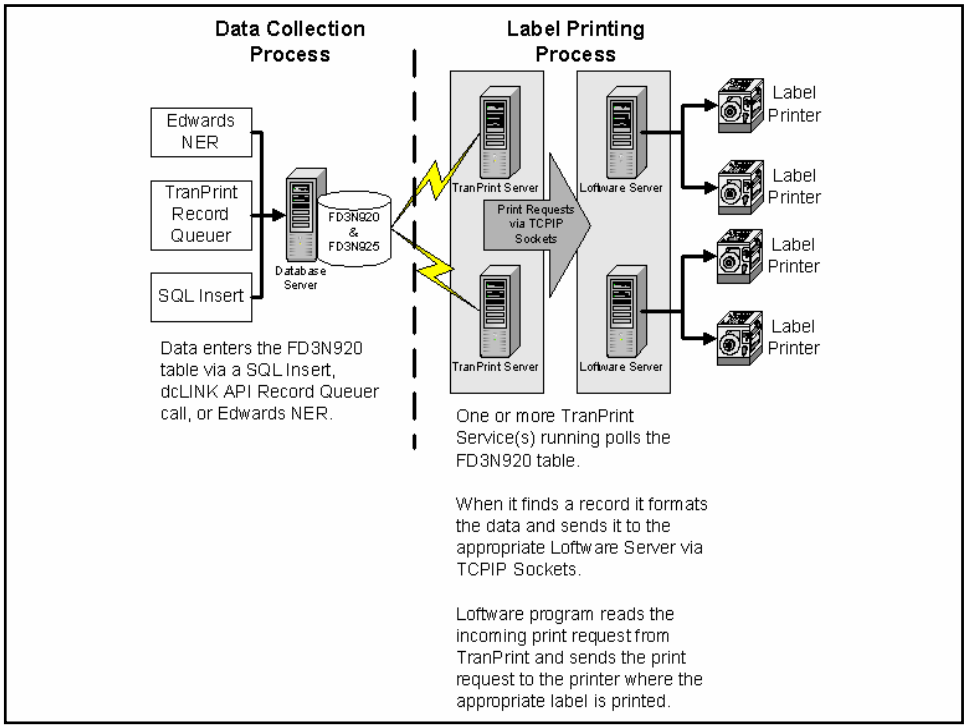
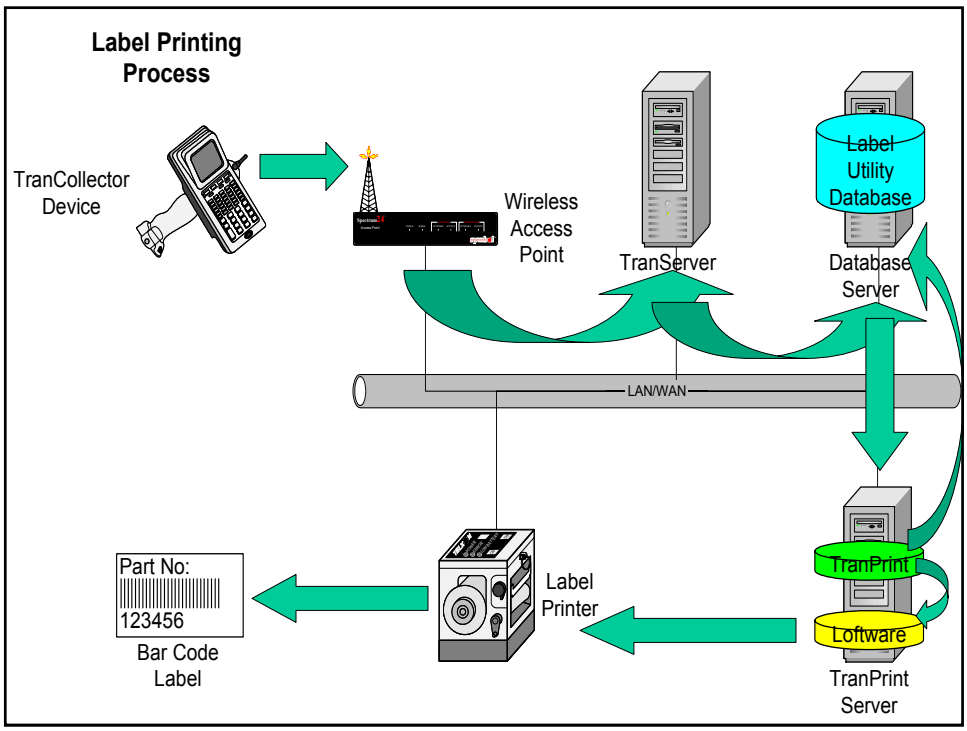

Data Collection Process
Label Printing Process
Edwards NER
TranPrint Record Queuer
SQL Insert
FD3N920 & FD3N925
Database Server
TranPrint Server
TranPrint Server
Print Requests via TCPIP Sockets
Loftware Server
Loftware Server
Label Printer
Label Printer
Label Printer
Label Printer
Data enters the FD3N920 table via a SQL Insert, dcLINK API Record Queuer call, or Edwards NER.
One or more TranPrint Service(s) running polls the FD3N920 table.
When it finds a record it formats the data and sends it to the appropriate Loftware Server via TCPIP Sockets.
Loftware program reads the incoming print request from TranPrint and sends the print request to the printer where the appropriate label is printed.


Label Printing Process
TranCollector Device
Wireless Access Point
TranServer
Label Utility Database
Database Server
LAN/WAN
TranPrint
Loftware
TranPrint Server
Label Printer
Part No:
123456
Bar Code Label

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Loftware and TranPrint Configuration

Loftware

- World-class barcode labeling software
- DSI and Loftware, Inc. have been partners for a number of years
- TranPrint utilizes specifically tooled versions of the Loftware main product lines to handle integrated wireless printing solutions developed using TranPrint technology

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Loftware and TranPrint Configuration

Loftware Printer Configuration

- Two methods
  - Printer Wizard
  - LLM Printer Configuration

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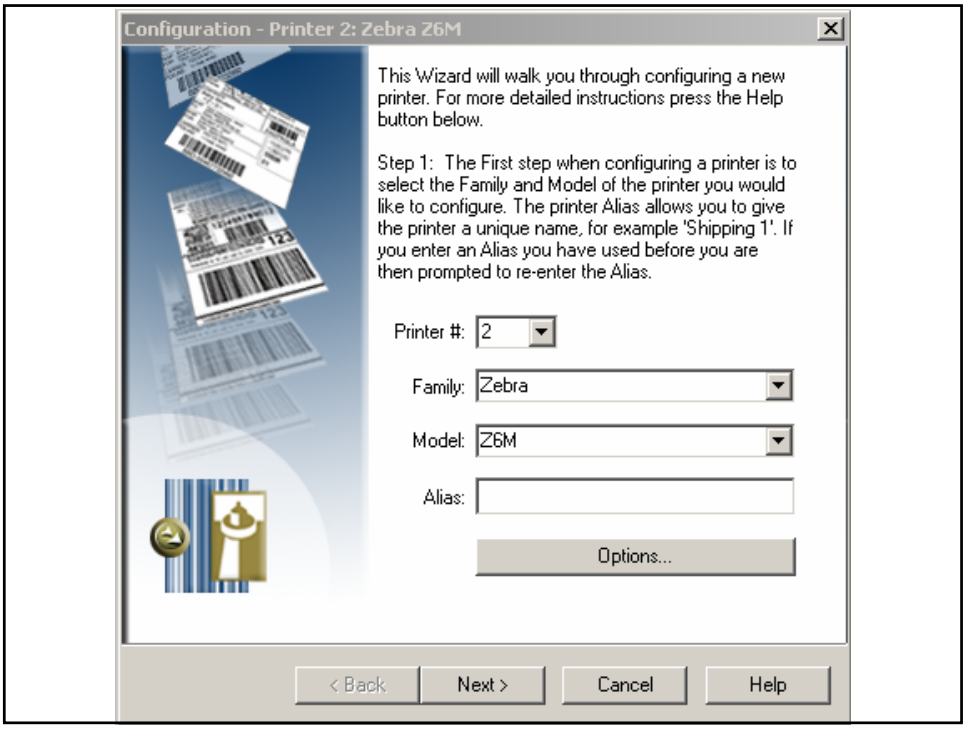

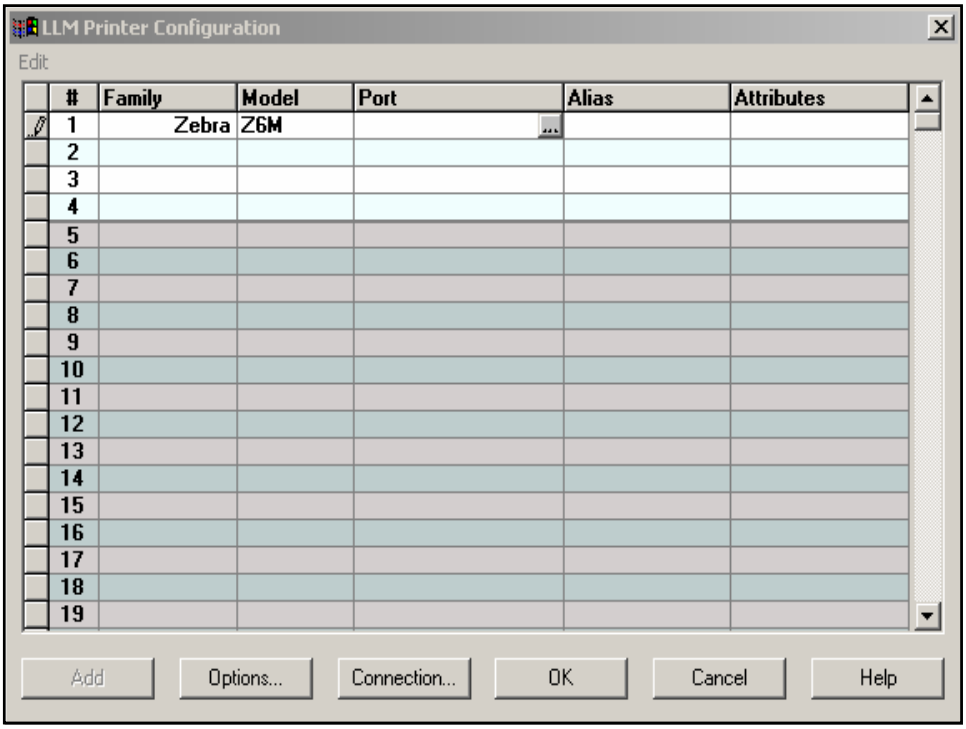

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Loftware and TranPrint Configuration

Loftware Label Setup

- Chapter 4 in the Loftware Users Guide, presents an easy to follow tutorial that allows you to become familiar with the Loftware Label Manager On-Demand Print Form. This form is created automatically whenever you create and save a new label file.
- This chapter is is also useful if you are new to either label making or Loftware Label Manager. The tutorial explains how to create a basic shipping label, including a shipping address, a return address and a part number encoded in a barcode.

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Loftware and TranPrint Configuration

Loftware Label Setup

- Label field names should be short and simple
  - They will be referenced when creating label output records with scripts in TranBuilder
- Each label is designed for a specific printer

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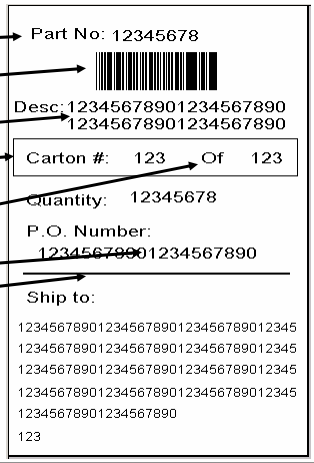
Loftware and TranPrint Configuration

Sample Label Format

- Fixed Text
- Bar Code
- Paragraph
- Box
- Increment/Decrement
- Variable Text
- Line



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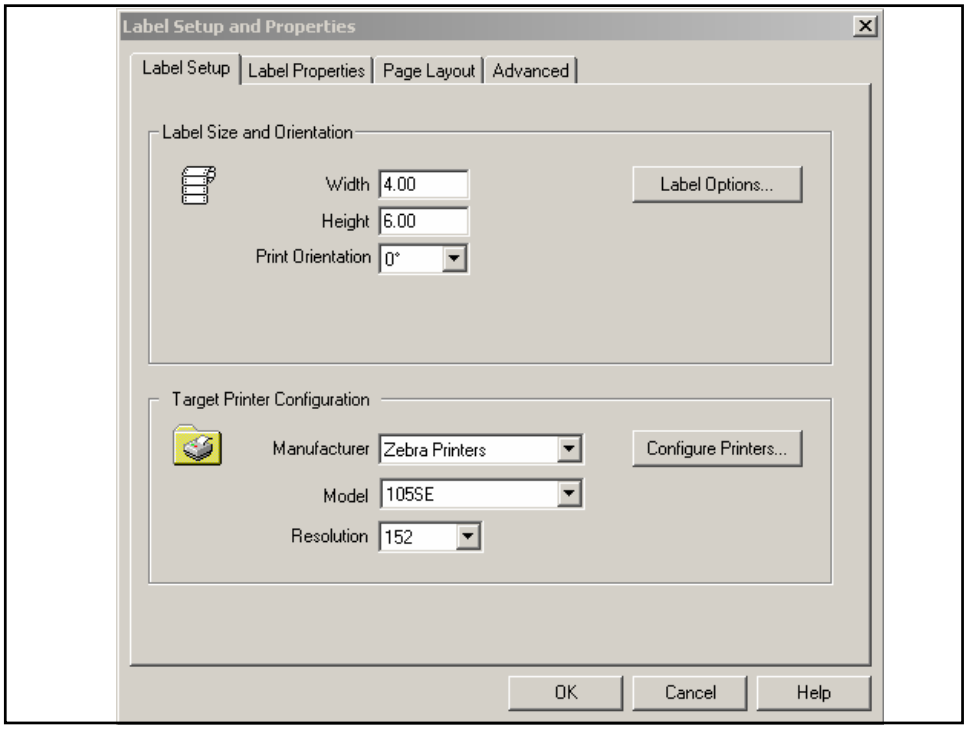

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Loftware and TranPrint Configuration

Configuring dcLINK Printers

- Printers must be configured in Loftware and in the dcLINK Configuration Utility
  - **Printer Number** – Unique identifier for the label printer.
  - **Server Address** – IP address of the server on which the Loftware program is installed.
  - **Server Port** – ID number of the port on the server where the Loftware program is installed that the printer uses when printing labels (always 2723)
  - **Server Printer Number** – Printer number assigned in your Loftware program for this printer

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Configuring Printers

Printers

	Printer Number	Server Address	Server Port	Server Printer Number
	10	172.17.90.165	2723	1
	11	172.17.90.165	2723	2
	20	172.17.90.170	2723	1
*				

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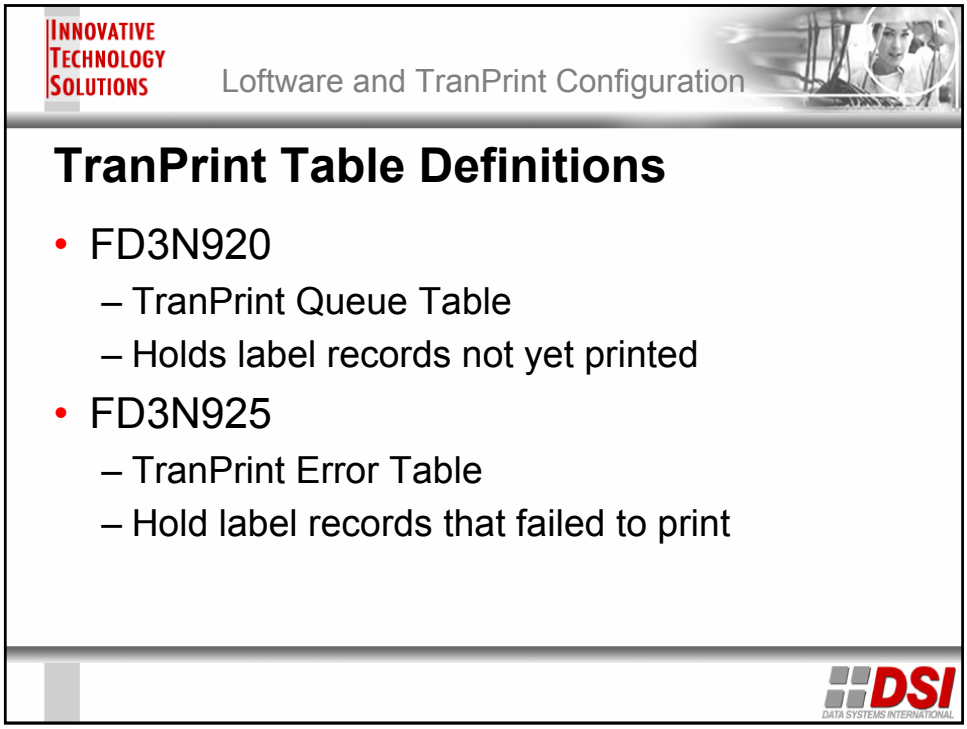

Table design

TranPrint Queue Table (FD3N920)				
Column	Data Type	Primary Key	Null-able	Default Value
PQGS2A	VARCHAR (20)	Y	N	
PQRCT1	FLOAT	Y	N	
PQSE01	FLOAT		Y	
PQRNUM	FLOAT		Y	
PQGS2B	VARCHAR (20)		Y	
PQCRPT	FLOAT		Y	
PQUFD1	VARCHAR (250)		Y	
PQGS2C	VARCHAR (20)		Y	

TranPrint Error Table (FD3N925)				
Column	Data Type	Primary Key	Null-able	Default Value
EHGS2A	VARCHAR (20)	Y	N	
EHRCT1	FLOAT	Y	N	
EHSE01	FLOAT		Y	
EHRNUM	FLOAT		Y	
EHGS2B	VARCHAR (20)		Y	
EHCRPT	FLOAT		Y	
EHUFD1	VARCHAR (250)		Y	
EHUFD2	VARCHAR (250)		Y	

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Column definitions

PQGS2A & EHGS2A: This field is the label identity field. It must be unique to that particular label print job. Developers typically will pass DEVICEID + TIME to make a unique string. This field will get automatically updated when using the TranPrint Queuer API for label jobs.

PQRCT1 & EHRCT1: Sequence number of the record. Because the Data column (LPURD1) can only hold 250 characters, for labels with more that 250 characters of data passed into the table the Sequence column help TranPrint identify the record to label. This field will get automatically updated when using the TranPrint Queuer API for label jobs.

PQSE01 & EHSE01: Last Record Flag for print job. This field tells the TranPrint Service that it has received the last string of information needed for this print job. Value is either 1 or 0. 0 indicates that an entry is part of a multiple line print request and that the line is not the final line in the request. The TranPrint Service will not process a print request until a request ID entry includes an entry with this flag set to 1.

PQRNUM & EHRNUM: The Printer Number for the desired printer is populated here. These printer numbers are defined in the Configuration Utility (NOT LPS Printer numbers).

PQGS2B & EHGS2B: This is the label.lwl file that will be printed.

PQCRPT & EHCRPT: Quantity of Labels you want printed.

PQUFD1 & EHUFD1: Data column. This field holds the data map for the label and must be formatted as follows:

~fieldname1!fielddata1~fieldname2!fielddata2~fieldname3!fielddata3

Field name is the name given to the text box on the label design form in the Loftware application. For example, suppose the following fields are to be printed on a label: item number, lot number, and quantity, and these fields are named s follows: ItemNum, LotNum, and QTY. The PQUFD1 field would look something like this:

~ItemNum!1001~LotNum!9946787982~QTY!25

PQGS2C: Record Status field. This allows TranPrint to mark the records that are being processed.

EHUFD1: Error's column. If an error occurred during processing it would be reported in this field in the Error Table (FD3N925). These errors can be reviewed in the TranPrint Error Corrections application shipped with dcLINK.

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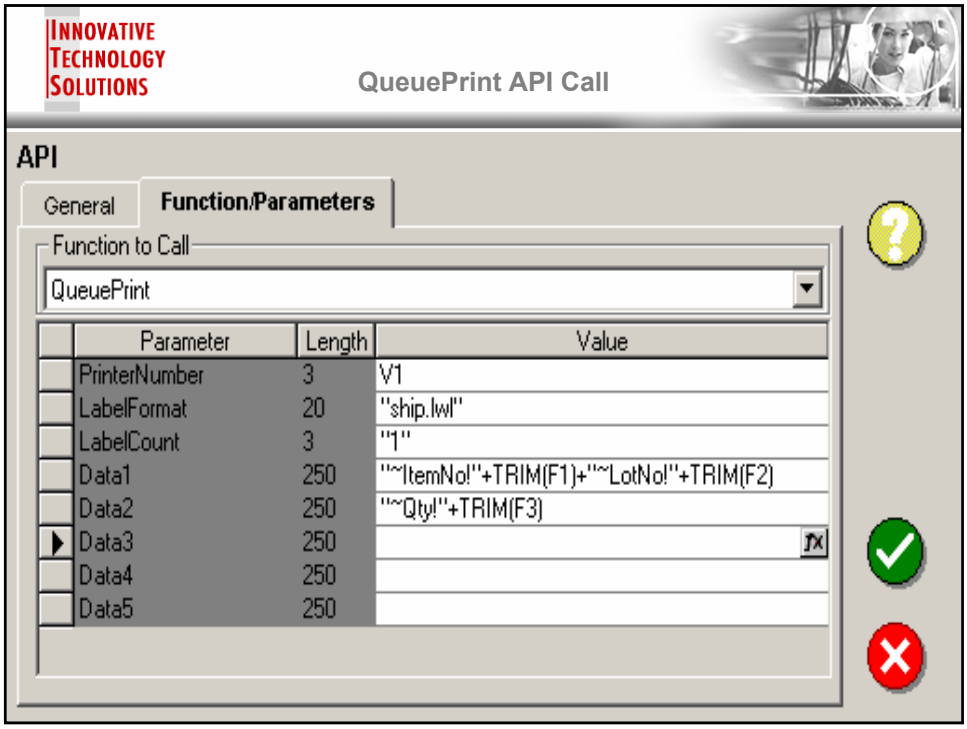
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QueuePrint API Call
API
General
Function/Parameters
Function to Call
QueuePrint
Parameter
Length
Value
PrinterNumber
3
V1
LabelFormat
20
"ship.lwl"
LabelCount
3
"1"
Data1
250
"~ItemNo!"+TRIM(F1)+"~LotNo!"+TRIM(F2)
Data2
250
"~Qty!"+TRIM(F3)
Data3
250
Data4
250
Data5
250

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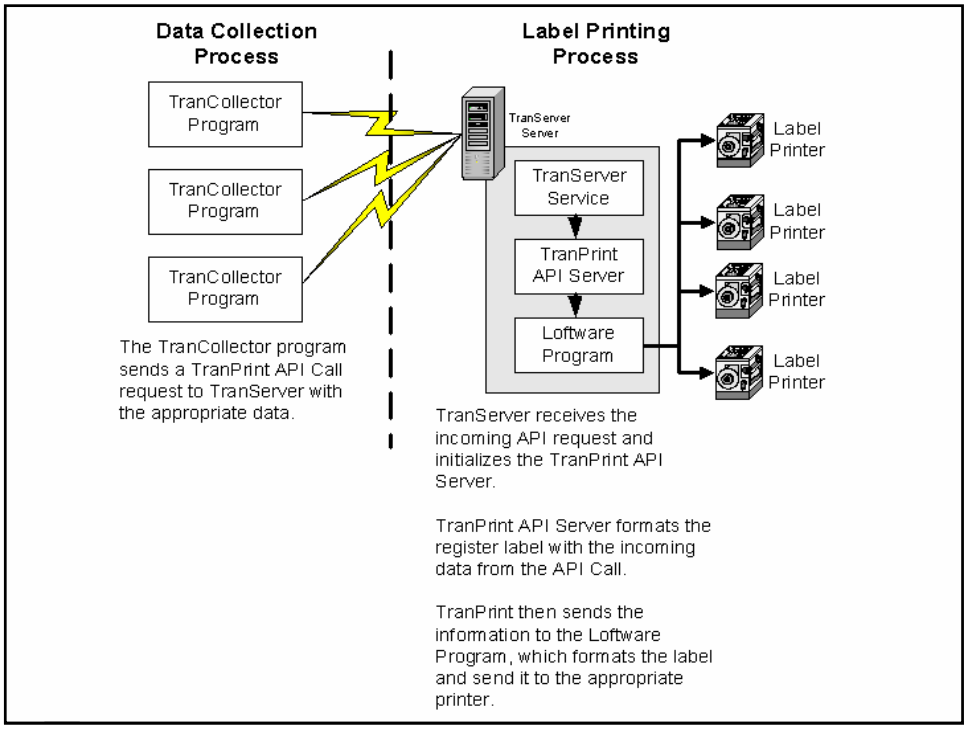
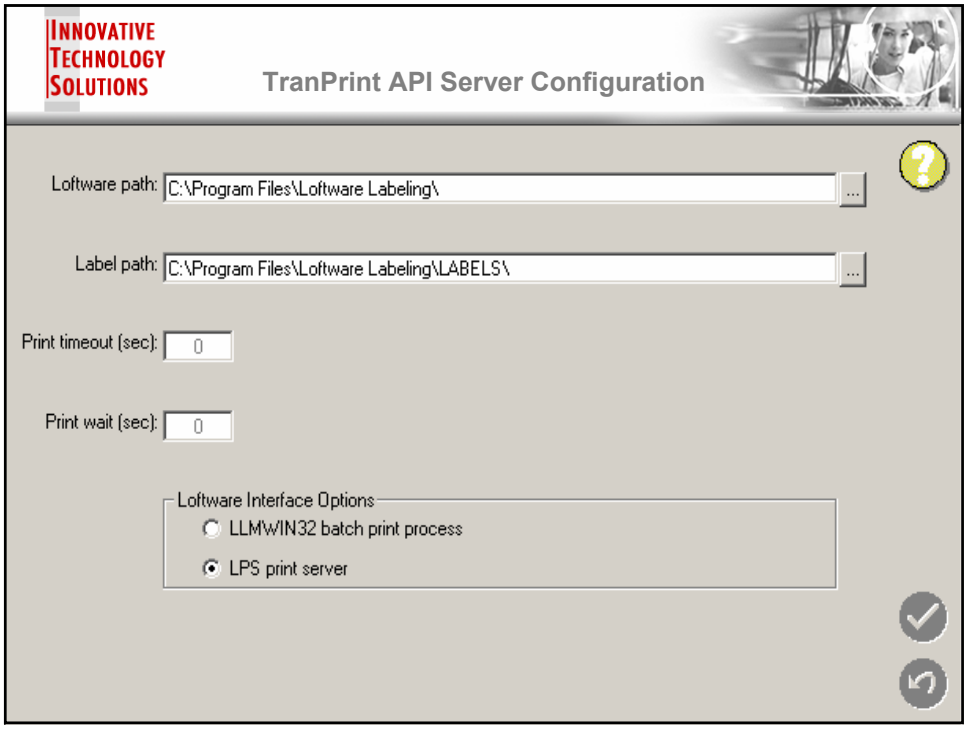
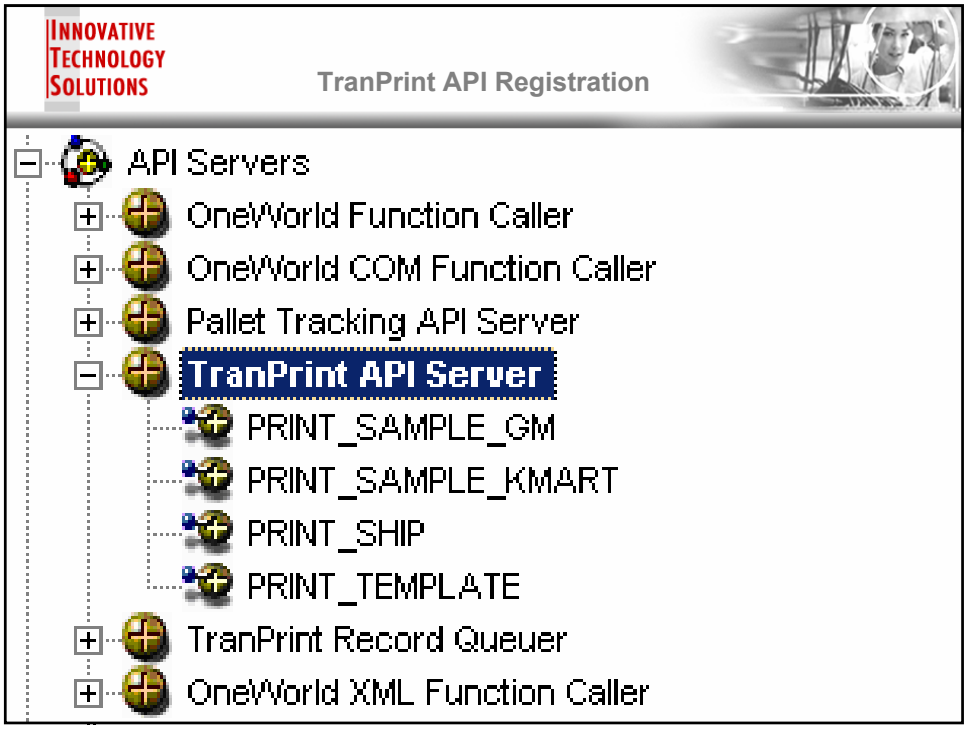
Loftware and TranPrint Configuration

TranPrint API Server

- Integrated API Server
- Register labels as APIs
- Compiles and translates a drop file (CSV) that Loftware Print Server processes
- Not to be used for high volume printing







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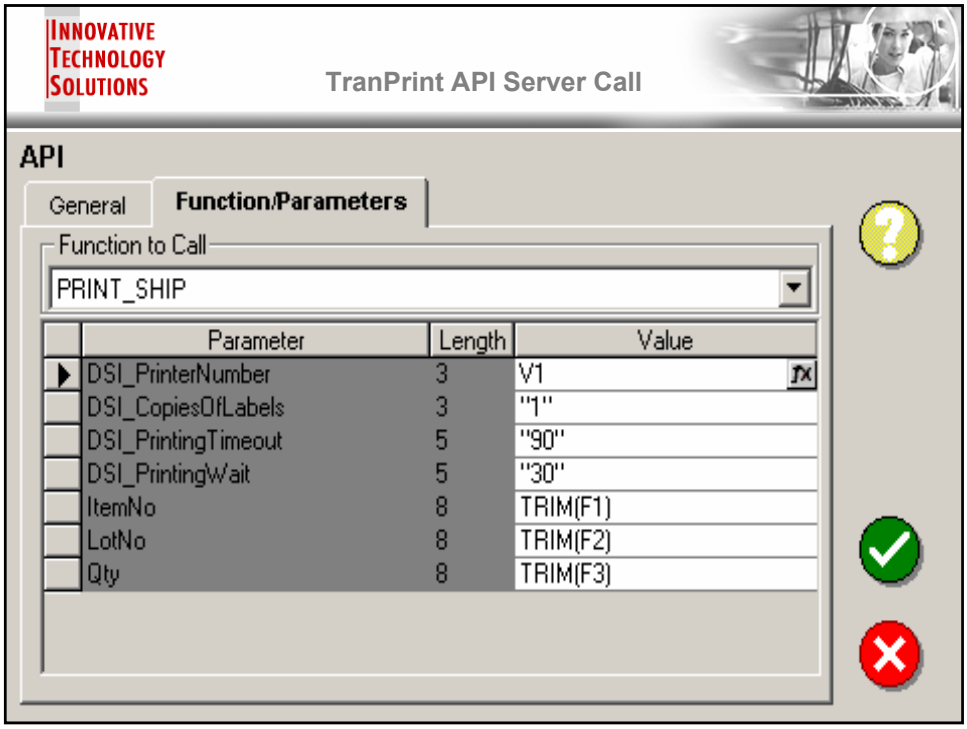

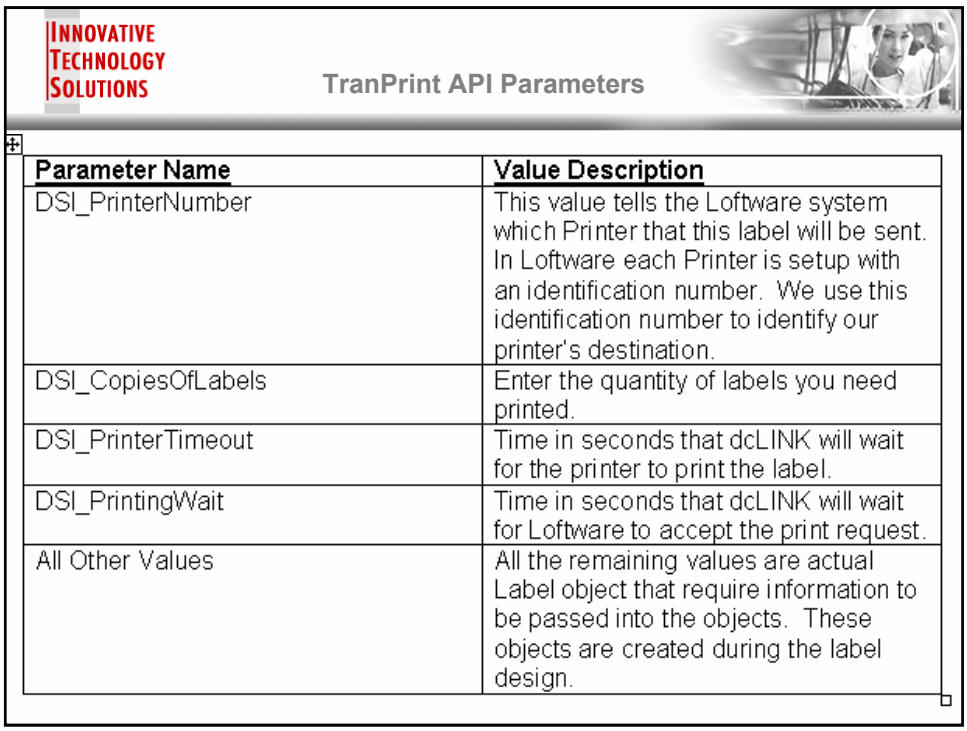

Parameter Name	Value Description
DSI_PrinterNumber	This value tells the Loftware system which Printer that this label will be sent. In Loftware each Printer is setup with an identification number. We use this identification number to identify our printer's destination.
DSI_CopiesOfLabels	Enter the quantity of labels you need printed.
DSI_PrinterTimeout	Time in seconds that dcLINK will wait for the printer to print the label.
DSI_PrintingWait	Time in seconds that dcLINK will wait for Loftware to accept the print request.
All Other Values	All the remaining values are actual Label object that require information to be passed into the objects. These objects are created during the label design.

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