Formpipe.
Lasernet

Lasernet 9

Overview

1   WELCOME TO LASERNET 9

This set of user documents provides the information required for successfully integrating Lasernet into your business. These documents address the installing, deployment, testing, operation and maintenance of the Lasernet Input and Output Management system.

2 INTRODUCTION

2.1 Who should use this guide

This guide is written for Lasernet developers. It is intended as an overview of the basic concepts behind Lasernet and as primer to the more detailed operational manuals provided. It may also be of interest to Lasernet administrators who want to further familiarize themselves with Lasernet.

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4   DOCUMENT SET

The set of documents for Lasernet 9 consists of:

- **Lasernet 9 - Overview** (this document)

  File *Lasernet – Overview.pdf*'

- This document gives an overview of the complete set and also describes the function, composition and operation of Lasernet.

- **Lasernet 9 - Installation**

  File *Lasernet - Installation.pdf*

  This document contains step-by-step instructions on how to install Lasernet 9.

- **Lasernet 9 - Monitor**

  File *Lasernet – Monitor.pdf*

  This document describes the Lasernet Monitor application.

- **Lasernet 9 - Developer**

  File *Lasernet - Developer.pdf*

  This document describes how the Lasernet Developer program is built and how to use this software to easily create smart and highly effective solutions.

- **Lasernet 9 – Form Editor**

  File *Lasernet – Form Editor.pdf*

- This document describes how to design and maintain great looking forms and reports in the Form Editor using data from any administrative system on any platform.

- **Lasernet 9 – XML Transformer**

  File *Lasernet – XML Transformer.pdf*

  This document describes how to work with XML in the XML Transformer Editor.

- **Lasernet 9 - Scripting**

  File *Lasernet - Scripting.pdf*

  This document describes how to use scripting to expand the functionality of Lasernet 9.

- **Lasernet 9 - SharePoint**

  File *Lasernet – SharePoint.pdf*

  This document highlights the integrations with Microsoft SharePoint 2007.

- **Lasernet 9 – Azure Storage**

  File *Lasernet – Azure Storage.pdf*

  This document shows how Lasernet can integrate Microsoft Azure Storage Blobs and Queues.

- **Lasernet 9 - Client**

  File *Lasernet – Client.pdf*

  This document describes the Lasernet Client application.

  The Lasernet Client is an application which must be installed separately.

- **Lasernet 9 - OCR**

  File *Lasernet – OCR.pdf*

  This document describes the Lasernet OCR application.

  The Lasernet OCR is an application which must be installed separately.

- **Lasernet 9 - Web Service API**

  File *Lasernet – Web Service API.pdf*

  This document describes how the Web Service API is used by the Lasernet Client to access queues and jobs in Lasernet as well as integrations for 3rd party applications to provide the same functionality as Lasernet Client.
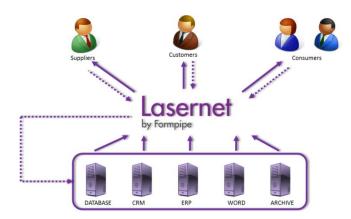
- **Lasernet 9 - SDK**

  File *Lasernet – SDK.pdf*

  This document describes how to create 3rd party modules for Lasernet in .NET.

5   LASERNET 9 OVERVIEW

5.1   What is Lasernet Input- and Output Management

Lasernet is a suite of input and output document management solutions. Each element tightly integrates with your existing IT applications to support the migration from labor and paper intensive systems to cost effective, faster e-enabled document processing. Lasernet captures output and transforms it into attractive documents, reports and labels, intelligently routing them for distributed print or electronic delivery to customers or business partners, by File, HTTP, FTP, Web Services, E-mail, or Fax in various formats including PDF, TIF, XML, E2B, EHF, Finvoice, UBL-XML, Svefaktura, EDIFACT and CSV.

This is achieved without complex and expensive programming via an entirely 'drag and drop' configurable interface, enabling the user to extend the functionality of core applications without major investment or upheaval.

5.2   What can Lasernet do

Lasernet will help your organization save money by automatically sending your business documents electronically. The cost benefits are instant, saving on paper, toner, print and staff time. With Lasernet it is easy to adapt to your customers' requirements by delivering your business documents in their preferred format and layout. It is also possible to dramatically cut consultancy costs that normally occur when developing and fixing reports in your financial system. With Lasernet it is easy to design and maintain your own reports.

Lasernet Input and Output Management is easy to deploy, customize and use from the Lasernet Developer. Our solution contains highly developed features and integrates seamlessly with ERPs or other business applications, scaling alongside your business as it grows.

5.3 Add the modules needed

The Lasernet Input and Output Management solution is built to suit businesses of any size, from customers running a single server application to worldwide organizations running hundreds of servers.

The Lasernet suite is developed and deployed in modules. This allows each company to choose from a range of applications and features that best suit their needs and which complement the input and output capabilities of their business application systems and those of their customers.

5.4   Installing Lasernet 9

The installer includes the folliwing software package:

- Lasernet Developer
- Lasernet Server
- Lasernet Monitor
- Lasernet Launcher
- Lasernet Meta
- Lasernet License Manager
- MSI installer for Lasernet Client
- MSI installer for Lasernet OCR
- MSI installer for Lasernet Meta
- Lasernet Configuration (web site)

When you install Lasernet 9 the following software components are installed:

Lasernet Server – The backbone of the Lasernet Input and Output Management product suite. The Lasernet Server tightly integrates with all common business applications to provide faster document and data processing. The Lasernet Server receives and processes data from either backend systems via file or printer queues, or from added Lasernet modules or data sources like email, FTP, or web services.

The system works by means of a sophisticated data recognition process which can be tailored to suit almost any business requirement. This determines how the data is processed, transformed and delivered.

The Lasernet Server can reformat, add, sort and customize the data before it is delivered to any other module in the Lasernet product suite or delivered to any network printer as a paper based document, with a new layout including change of graphics, location and fonts.

The Lasernet Server can be deployed as a standalone solution if the need for document management is limited to layout, formatting and printing. It can also be deployed with any other module in the Lasernet product suite, all of which bring a significant benefit and new options to the base system solution. This can help you to create an optimal input and output management strategy, meeting the demands from your business partners and customers.

It is possible to install the Lasernet software across many different servers on the network, so that data capture can be done on one server, processing and delivery of documents on another.

As standard, the Lasernet Server is built with a range of ways to receive and process input, into intelligent output, from any given application. The software can capture data via a local or network folder, email services, web services, FTP and HTTP servers, printer queues and a range of cloud services like Microsoft Azure Storage, Azure Service Bus, OneDrive, Dropbox, Google Drive and Google Print.

The Lasernet Server is able to work with input formats like ASCII, XML, EMF, CSV, EDI, XLSX, TIFF and PDF. ASCII is generated from ERP systems like SAP and Oracle and can be single oriented print, containing several pages per job, or job oriented pages containing one page per job. XML can be generated from an ERP systems like Microsoft Dynamics AX or NAV and can process XML files containing either one or several jobs per XML file. Furthermore, the software supports native Windows EMF formatted print data, generated from Microsoft Word or any ERP system capable of using Windows printer drivers. Input formats for CSV, EDI and XSLX can be converted to XML via internal engines for easy parsing.

The input format can be converted to ASCII, XML, EMF, CSV, EDI, XHTML, DOCX, XLSX, TIFF and PDF via the Lasernet Form Editor and a range of other printing formats like PCL, PostScript and ZPL via external printer drivers.

Lasernet Developer – An application for configuring and customizing all of the Lasernet Input and Output Management modules and applications. It contains a powerful and easy to use interface for mapping data fields from your applications and setting up rules for delivering and handling documents.

Lasernet Monitor – Provides information about the Server events (error, processing start/stop etc.) and allows users or administrators to start/stop the Server. The Developer and Monitor can be installed on any workstation to remotely monitor the Server regardless of where it is located.

Lasernet Launcher – Desktop tool for easily launching applications and manuals in the Lasernet suite.

Lasernet License Manager – Used for maintaining your licenses for Lasernet Server and Lasernet Developer. The application also installs and uninstalls Lasernet service instances

5.4.1   Additional applications

The Lasernet Input and Output Management solution includes two additional client applications which must be installed separately.

Lasernet Client – An application for viewing job queues and their jobs. Basic tasks like editing the JobInfos of jobs, re-scheduling of jobs, releasing paused jobs, searching for jobs, viewing jobs and removing jobs are possible.

Lasernet OCR – A client/server solution used for processing incoming data and easily extracting it for importing directly into a workflow system. By setting up simple text recognition you can capture and use data from forms such as invoices, order confirmations etc, from any of your business partners. The only requirement is that documents are delivered as PDF, TiFF or Text files to a channel available to the Lasernet Server.

Lasernet Meta – A module, which allows you to create custom solutions which can interact via web services in Lasernet Server. From Lasernet Meta, running on the client side, you will be able to exchange your documents together with metadata and send them to an input web service and route them to an output destinations configured on the Lasernet Server.

5.4.2   Windows services in Lasernet 9

Lasernet 9 includes four mandatory services and two additional services.

Lasernet 9 (Default:3279) – The primary Lasernet service to process workflows and forms. Installed and licensed by the Lasernet License Manager.

Lasernet Print Capture 9 – The Lasernet Print Capture service provides a virtual printer for creating Lasernet overlays. Installed by the installer.

Lasernet Config 9 – A new service to manage all the Lasernet Configurations. Installed by the installer.

Lasernet Portal 9 – A new service that provides a web interface for managing Lasernet configurations and servers. Installed by the installer.

Lasernet Dictionary 9 – Only required for users running Lasernet Input Management with dictionary support. Installed by the Lasernet License Manager.

Lasernet Meta Proxy 9 – Allows multiple Meta instances to run on the same machine. Installed by the Lasernet Meta 9 installer.

5.5   Key features in Lasernet

Barcodes – Documents can be designed with built-in linear and 2D barcodes and printed via laser printers / thermo printers or inserted into TIFF / PDF documents.

Calculations – Perform any calculations on the data stream, including adding numbers, running totals, calculate transport lines, discount columns etc. New calculated fields can be linked back to the main application.

Charts – Incorporate graphs into reports & financial statements in 1D or 2D.

Criteria Master Form – The Lasernet Developer is built with a powerful tool for handling criteria used to recognize form processing. Once criteria has been added to a form, it can then be used as a master for other forms. This way all criteria will be inherited by children of that master form. This makes it very easy to create and maintain form criteria both simple and complex.

Deployment – Manage and deploy any revision of any configuration from the Lasernet Developer or the Lasernet Configuration web site. View history, revision number, date, commit messages, author and active running revision.

Distribution – The Lasernet Server can automate document distribution internally as well as externally. All of your documents can be delivered to the desired location and printer, without incurring the time and cost of manual intervention.

Drivers – Lasernet can output to any printer or printing device working with Windows printer drivers. Once the driver information is loaded into Lasernet, all of the functions contained within the driver can be used for your documents. This means full control of output trays, duplex, paper size etc, as well as support for special printers like label, check and thermo printers.

Encryption and signing – Enables you to encrypt, sign, decrypt and verify internal and externally generated PDF documents. These features ensure that your company can comply with the latest demands for secure communication and archiving of business documents on a worldwide level.

Filter – The software contains several input filters which standardize incoming data formats to optimize the data streams and form creation. Lasernet can convert to and from any codepage format supported by Windows.

Graphics – Incorporate illustrations based on product codes. Retrieve binary or base64 encoded images via web services or sites, file locations, databases, Microsoft Azure, SharePoint and FTP to name but a few. Add symbols onto labels and company logos into letter heads and much more. Draw lines, rectangles, calculated tables etc using information or triggers from the input stream.

JavaScript – The JavaScript function in Lasernet allows advanced users to create specialized applications or functions to complement Lasernet's existing abilities and improve integration into more complex workflows and systems. Any script can be called from Lasernet, when processing data or it can pass information between modules.

Overlay – Any overlay or drawing created in Windows applications like Microsoft Word or Microsoft Publisher can be inserted into the output document. This allows you to maintain the look and feel of your documents separately from the data they contain. This is incredibly useful for maintaining consistent corporate branding across divisions or alternatively, uniquely branding documents between different arms of an umbrella company whilst retaining the same underlying data structure. You can also draw and insert graphics directly onto a form using the design tool.

JobInfo – Lasernet Server has a powerful and flexible function for adding metadata to the data stream. Interesting information concerning the handling of a job (e.g. username, originating printer or mail headers) will get attached to the job and identified by a unique name. For example, the JobInfo "DocName" contains the original document name as shown in the Windows spooler subsystem, such as "Microsoft Word - Lasernet.doc". Lasernet uses the JobInfo system for setting up information like e-mail addresses, archive indexes, fax numbers, or printer specific information. The additional data inserted into JobInfos are commonly used for setting up conditions for validating the data stream. For example, when mail is received on a mail input port, a "MailFrom" JobInfo is set. As the data reaches the form

recognition part of Lasernet, a filter might be set on the "MailFrom" JobInfo, so that "erp@formpipe.com" and "b2b@formpipe.com" e-mail addresses are assigned different forms and data flows throughout Lasernet.

JobInfo Master Store – Allows you to set environment JobInfos at server level. JobInfo substitution syntax is supported for many object settings in the configuration to replace JobInfos/values listed in the master store. JobInfos added to the JobInfo master store are exclusively assigned to jobs received and processed by that server instance.

Open API – An API is available, giving third parties the possibility to create custom solutions to interact with the Job Engine and Job Database in Lasernet.

Patch server – This feature helps to validate a configuration, without being forced to commit changes and synchronize a local configuration stored on another computer (multi developer mode). All the configuration objects, as well as non-committed objects, are transferred to the Lasernet Server whilst the service runs in patch mode and the configuration maintains same revision number. Patch mode is recommended for development/test servers only and not to be used for production servers.

Phrases - Create and inherit multiple inline or global phrases across forms. Phrases can be created in the Rich Text editor using DOCX/PDF as the output format.

Rearrange Master – The Lasernet Developer has a powerful forms design tool, which uses master and child pages. Documents, once created, can be used as masters for other documents, so that all corrections, fonts, calculations and settings will flow down into new forms, emails, faxes, files, etc. This provides you with a simple method for setting up and maintaining your forms.

Scheduler – Initiates actions in Lasernet at predefined times for incoming or outgoing tasks.

Subform – Provides a function similar to that of the Rearrange Master, but instead contains lists of Rearranges, Shapes, Images, Barcodes etc, which can be saved as a local or global object. It is then possible to inherit global Subforms multiple times in multiple sheets/forms, both in a static position, similar to Overlays, or in a user-defined position similar to Rearranges. Subforms work in forms created with enhanced metafiles as the output format.

Unicode – Lasernet has native support for Unicode formats, such as UTF-8 and UFT-16 for the design and printing of documents in Chinese, Russian, Korean, etc. This means it is possible to transfer a single byte character set like ASCII into a double byte character set without any change in the application system.

Users and groups – Administer local Lasernet users and groups from the Lasernet Configuration web site. Assign users and groups to Security Profiles to manage access control to products and services provided by Lasernet.

5.6   Configuring Lasernet 9

The product is configured by simply linking modules together. The set of available modules depends on the license purchased.

The product can be easily extended by means of built-in script engine/editor and supports third-party plug-ins.

5.7   Migrating from earlier versions

5.7.1   Upgrading from Lasernet 6.2 or older

When upgrading from a configuration created in Lasernet 6.2 or older, please contact your dealer for specific installation instructions as this information is not included in the Lasernet 9 documentation.

5.7.2   Upgrading from Lasernet 6.5

When upgrading a configuration from Lasernet 6.5 to Lasernet 8 your settings will be kept and migrated, except for those modules which have been phased out and minor form settings. Please refer to "Lasernet 6.6 – Installation" for instructions on how to replace old modules with the new solutions.

5.7.3   Upgrading from Lasernet 6.6 or 6.7

When upgrading a configuration from Lasernet 6.6 to Lasernet 8 settings will be migrated and compatible.

5.7.4   Upgrading from Lasernet 7

When upgrading a configuration from Lasernet 7 to Lasernet 8 settings will be migrated and compatible, except for those modules which have been phased out. Please refer to "Lasernet 8 – Installation" for more information.

5.7.5   Upgrading from Lasernet 8

When upgrading a configuration from Lasernet 8 to Lasernet 9 settings will be migrated and compatible, except depricated protocols, modules, users, groups and security profiles. Please refer to "Lasernet 9 – Installation" for more information.

5.7.6   Licensing

Lasernet 9 is not compatible with license files from older versions of Lasernet. You must contact your dealer for an upgrade before the installation.