

The Present and Future of the Postal Automation System: In Quest of more Advanced Recognition Technology

Deutsche Po

Deutsche Post World Net

Company Profile

Projects to increase the Reading Rate

Coding and Sorting Data Files

Current Problems

Future Prospects

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Structure of Mail (2003)

	Amount p. y.	%	Address	%
Letters	E+1 10.232.657.791	51	handwritten	19
	E+4 3.294.708.364	17		
		68	printed	81
Flats	E+1 1.757.218.313	9		
	E+4 4.298.849.851	21	30	10
			printed	90
Maxiletters	E+1 308.749.337	1,5	handwritten	n.a.
	E+4 66.176.136	0,5		
		2	printed	n.a.
Total		100		

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Recognitions Components

	Scanner	Primary Reader	Secondary Reader	Delivery Barcode
Letters	Gray, Scale	Binary, 1 Scale	Binary, 1 Scale	Fluorescent Bar-No-Bar Type
Flats	Gray, Scale	Binary, 2 Scales	Binary, 2 Scales	No Barcode
Maxi Letters	No OCR			

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- Projects to increase the Reading Rate

Letter and Flat Sorting

- Implementation of secondary readers, which are reading the rejects of the primary readers
- Improving the readrate in two steps (2003 and 2004)

		Outgoing ¹⁾			Incoming ¹⁾		
		Readrate % ²⁾ from	up to	Error Rate %	Readrate % ²⁾ from	up to	Error Rate %
Letters	handwritten		75	2,3		52	1,4
	printed		95	0,5		91	0,4
Flats	handwritten		69	2,5		50	2,8
	printed		94	1,1		87	0,6
Maxi Letters		No OCR-Reading					

¹⁾ incl. non charg

²⁾ based on comp mailstream

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Deutsche Post World Net - Recognition Systems

Deutsche Post is

- user of the Recognition Systems - not developer**
- purchasing the Systems (hardware and software) from the market
(Machine suppliers, component suppliers, IT-supplier)**

Deutsche Post does not

- integrate different software systems - that is done by the suppliers**
- know the Algorithms of the software implemented in the Recognition Systems**

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Deutsche Post World Net - Current Problems

- 👉 **Error Rate in Address Reading too high**
- 👉 **Spotting of Address Block (AOI) on Flats too difficult**
- 👉 **Recognition and Reading Rate of 2 D-Barcodes for Franking is too low**
- 👉 **Customer Imprints on envelopes (i. e. Advertisements, Stamps, etc.) are disturbing the OCR and the Recognition Devices**

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Deutsche Post World Net - Future Prospects

-  **Reducing the Error Rate of the OCR-Function**
-  **Increasing the Reading Rate of difficult letters (little contrast between colour of envelope and colour of ink)**
-  **Improving the AOI-Finding on Flats**
-  **Improving Stamp Reading and Evaluation Features for Revenue Protection**