

Data Input Project for Novosibirsk Mayor's Office



ATAPY took part in a social project for Novosibirsk Mayor's Office in cooperation with «Zolotaya Korona», a Russian nationwide retail electronic payments network.

The project was aimed at technical modernization of the fare collection procedure in public transport (metro, buses, trolley buses and tramways) by introducing electronic transportation passes based on microprocessor plastic cards.

A serious challenge for the project was the large amount of passengers using social security benefits and discounts. Novosibirsk Public Transportation Authority compensated transport carriers for transportation of such passengers from the city budget. One of the goals of the «Transportation pass» project was to retain the benefits/discounts scheme for people who were entitled to them, and at the same time provide a precise and convenient mechanism for gathering the transportation statistics for such passengers. It was necessary to exclude every possibility of fraud. Neglecting this issue was a weak point of the formerly used transportation pass system.

«Zolotaya Korona» offered a solution based on contactless microprocessor cards — personalized ones for citizens entitled for benefits/discounts scheme and non-personal ones for ordinary passengers. «Zolotaya Korona» issued separate types of personal cards for each appointed category of beneficiaries: students (the Student Transportation Pass), school children (the School Child Transportation Pass), and social security beneficiaries (the Social Security Transportation Pass).


There was yet another challenge. To obtain a personal transportation pass, each person had to fill in a paper

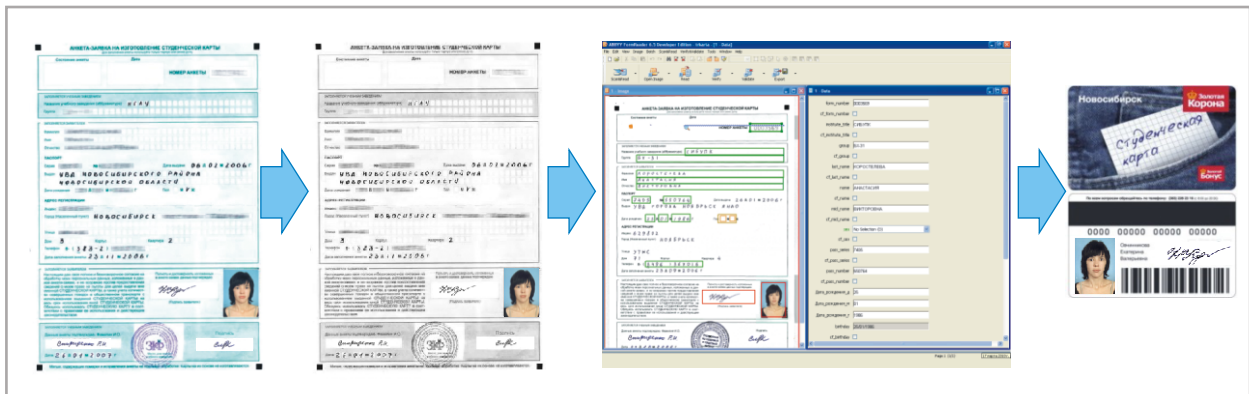
machine-readable form. «Zolotaya Korona» had to deal with tens of thousands of application forms, which needed to be processed within a short period of time, and with high accuracy. The additional requirement was storing the colored photo of the applicant in the database.

The peak of the «paper flood» was anticipated to come with the issue of Student Transportation Passes. To deal with the challenge, «Zolotaya Korona» turned to ATAPY Software — a data capture company with a proven track record.

The data capture process involved the following phases:

1. Filling-in the form by applicant (in handprint)
2. Scanning
3. Machine recognition
4. Verification of recognized data
5. Export to the database
6. Card production
7. Card issue

Working in a close cooperation with  engineers from «Zolotaya Korona», ATAPY developers helped to design a machine-readable application form to be filled by students at Phase 1 - a form specially optimized for processing by ABBYY FormReader. Then, ATAPY engineers developed a special pre-processing algorithm to be applied to form images between Phase 2 and Phase 3. It removed the color background from the form and improved the hand-printed text recognition quality, while retaining the colored photo. The procedure allowed to significantly



reduce the form processing turnaround at phases 3-5 (recognition and verification of data using ABBYY FormReader), and to ensure high accuracy of captured data.

Thanks to combined efforts of «Zolotaya Korona» and ATAPY Software, Novosibirsk students can now travel by all means of transport using the Student Transportation Pass, without reaching for money, student ID or entering a PIN code.

In the near future, «Zolotaya Korona» plans to extrapolate this valuable experience to other Russian cities.



Zolotaya Korona is a Russian nation-wide retail electronic payments network uniting 220 banks from 75 regions of Russia, CIS and foreign countries. «Zolotaya Korona» cards are accepted in 273 cities of Russia, and also in Ukraine, Belarus, Kyrgyzstan, Mongolia and China. The «Zolotaya Korona» system was established in 1994 by Center of Financial Technologies.

©2010 ATAPY Software. All rights reserved.
ABBYY and ABBYY FineReader are registered trademarks of ABBYY Software House.
All the other trademarks are the property of their respective owners.



ATAPY Software

630090, Enginernaya Street, 4a, 522
Novosibirsk, Russia
Tel. +7 383 33 56 569 Fax +7 383 33 56 561
www.atapy.com office@atapy.com

Zolotaya Korona

630055, Shaturskaya street, 2
Novosibirsk, Russia
Tel. +7 383 336 49 49 +7 383 335 80 88
www.korona.net korona@koronacard.ru