



# VIKING SOFTWARE SOLUTIONS™

A Division of Phoenix Software International®

**Systems for data capture and document management**

## **WEST VIRGINIA**

**DEPARTMENT OF TAX AND REVENUE**

Income tax, sales tax, property tax, beer barrel, soft drink and cigarette taxes—all the personal and business state tax returns for the State of West Virginia are handled by the Revenue Division of the West Virginia Department of Tax and Revenue. They are responsible for 26 different types of taxes in all. Approximately 2 ½ million documents are processed each year, requiring approximately 285-300 million keystrokes.

### **The Problem**

#### ***An Outdated Data Entry System***

The Revenue Division had a 14-year old Four-Phase data entry system. Although it had worked well for them in the past, it was becoming harder and harder to get service and parts to keep it running properly. Maintenance was expensive. And while it had been state-of-the-art when it was first purchased, its memory—only 768K—and disk space restrictions had become onerous.

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When the Department started installing a LAN, the Revenue Division decided to make the move to a new PC-based client-server system.

Said Bob Martin, Assistant Director of the Revenue Division, “We decided to look for new data entry software that would allow us to continue our traditional method of data capture, while expanding our capabilities and permitting us to start the move to imaging.”

### **The Solution**

#### ***Viking’s VDE®***

The Revenue Division put out a Request for Quote (RFQ), and evaluated products from the major data entry system vendors. They awarded the contract to Viking Software, purchasing 33 licenses for Viking’s VDE data entry software.

According to Dorothy Childress, Data Processing Supervisor for the Revenue Division, “One of the main reasons we liked Viking is that they understand what data entry is. It’s not just entering data into spreadsheets or word processors. Viking knows that data entry is high-speed data capture. We have operators who key at the rate of 15,000-16,000 keystrokes per hour. Viking’s software was designed to accommodate that speed.”

### **The Conversion**

#### ***Easy Transition to the New System***

The conversion process was complex. The Revenue Division had 50 separate data entry jobs, and each job had anywhere from 1 to 16 formats. Every one of those formats had to be converted from Four-Phase to work with Viking’s VDE system.

Viking’s experience in converting data entry systems, such as Four-Phase, was invaluable. The Revenue Division sent Viking hard copy of their formats, layout sheets, and sample returns. In a short amount of time, converted jobs were on their way back.

Viking built custom edits to accommodate data entry practices specific to the Revenue Division. For example, on most tax returns operators must key in both an account number and a check digit. The Revenue Division uses a two-pass system for accuracy, so both numbers would have to be keyed in twice. However, there is an algorithm that can take the check digit and match it against the account number to see if the correct account number has been entered. It didn’t make sense to enter the fields twice if the account number was already known to be correct. Viking’s programmers set up the

system so that if the check digit matches the account number, the account number does not need to be re-entered on the second pass. "With 2 ½ million documents a year, if we can save 12 keystrokes per document, that really adds up," said Childress.

"The conversion went very smoothly," said Childress. "We started in March, and by July 1 we had completed the move to Viking's system. There's no way we could have done it this quickly without Viking's help."

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A major concern during the conversion was moving the operators from the Four-Phase system to VDE. During the Revenue Division's last conversion, there was a significant degradation in production while the operators became comfortable with the new equipment. It took almost a year for them to get back up to their normal keying speed. With VDE, it was possible to create screens that looked very similar to the old Four-Phase screens, which helped the operators considerably.

"Normally, you would expect to see keying rates slow as operators adjust to a new system," said Larry Castell, Technical Services Coordinator for Viking Software. "We went to a lot of effort to make the new system look familiar to the operators. As a result, the Revenue Division never saw any decrease in operator keying averages."

Training was also important in ensuring a trouble-free transition to the new system. "Dorothy and Bob are great managers," said Castell. "They got everyone on board and made sure they didn't skimp on training. Training is an important issue for us, because we don't like to have our customers permanently dependent on us. We want to make sure they know how to maintain and update the system themselves."

"I have to make changes in our data entry jobs frequently," said Childress. "I'm not a programmer, and it's just so much easier to lay out screens and formats with VDE."

"I've been very pleased with the technical support as well," she added. "Every time I call Viking's technical support I either get an immediate answer or someone calls me back right away to tell me they know what the problem is."

## **The Future**

### ***Incorporating Imaging***

The Department of Tax and Revenue is incorporating imaging technology into the way it processes tax returns. In addition to the VDE licenses, the Revenue Division has also purchased several licenses for Viking's imaging software, ImagEntry. ImagEntry is data entry software that speeds keying from images, and can be interfaced with any imaging system.

"Even with an imaging system we're never going to be totally paperless," said Childress. "By using VDE and ImagEntry we'll be able to keep all our data entry compatible. Whether our operators are keying from paper or images, their screens will look the same."

"Our goal is to move in stages to an imaged environment," said Martin. "We started with data entry. Now we have an image-based system for recognition processing and are moving towards using imaging for archival storage. Eventually we will have a fully integrated imaging-based system where everyone will be able to access the documents they need via PC. Viking has played a major role in the data entry stage and we are looking forward to continuing to work with them as we expand our use of imaging."