

# Redwood Business Solutions

Making complex processes easy to manage.



## At A Glance

### Industry

- Retail

### Environment

- Sun Servers running Solaris
- Windows NT/2000
- POS systems running SCO UNIX in every store
- Oracle back-end databases

### Key Challenges

- Long batch runs that were difficult to manage overnight
- Complex dependencies within the overnight workload
- The need for stores to have the most up-to-date pricing and stock information

### The Solution

- Cronacle managing 26,000 jobs in a typical day
- Maintenance of complex job dependencies
- Automatic health checks on the business processing environment

### Key Benefits

- Up-to-date stock level and pricing information at each store
- Immediate sales information at HQ
- Add new business processes while easily maintaining the necessary dependencies
- More efficient overnight batch processing with fewer errors and interruptions

## The Container Store®

### An out of the box fit for Redwood's Cronacle at The Container Store

As the growth of The Container Store continued to escalate, the company realized that its IT operations department needed a more sophisticated process management solution to ensure that its use of IT gave The Container Store the competitive edge it needed.



Since being founded in 1978, The Container Store has devoted itself to helping people streamline and simplify their lives with adaptive storage and organizational products. The company has managed to achieve sustained, profitable growth and has ranked #1 on FORTUNE magazine's list of "100 Best Companies to Work For". From gift-wrap, luggage, food storage and garbage cans to modular shelving systems and filing cabinets, The Container Store offers a wide and diverse range of multi-functional, high quality products all designed to save its customers valuable space and time.

Throughout its history, The Container Store has sustained a commitment to unparalleled service along with a truly interactive shopping experience for each customer. Through extensive training, all sales personnel have an in-depth understanding of how each product can be utilized. Advanced information systems add to this service to ensure that customers benefit from up-to-the-minute information.

IT plays an integral role in supporting The Container Store business. Point of sale (POS) systems, located in each store, register sales activities. With the help of Redwood Software's process automation solution, Cronacle, this information is centrally captured at the Dallas headquarters throughout the day. Product update information, such as inventory status or special offer pricing, is also distributed around The Container Store network.

### Taking control of mission-critical background processing

Jeff Harvey, Production Manager at The Container Store, takes up the story: "The company had a long history of running

*"We have come to depend on Cronacle so much for managing our back-end processing that we couldn't operate our business effectively without it."*

**Jeff Harvey, Production Manager  
The Container Store**



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back-end accounting and inventory systems on IBM System 36 and AS/400 servers. Operations staff manually controlled most batch processing. This was a labor intensive and potentially error-ridden process.”

“It had reached the point where it was taking one whole day at headquarters to process the sales activity, generate the necessary reports, and then back up the system for the previous day’s business. The impact of an operating error and the devastating effect it could have on our ability to conduct business was apparent.”

The Container Store has been using Cronacle since 1998. The product was initially acquired to manage the increasing batch workload generated by the migration from AS/400 to a mixed UNIX and Windows NT environment. At that time, the major applications were the Merchandise Management System (MMS), a supply chain management solution, developed internally at The Container Store, and the Warehouse Management System (WMS). These applications, along with existing Financials systems, accounted for approximately 2000 jobs that needed to be run each night.

Jeff Harvey continues:“While there were quite a few jobs that needed to be processed each night, the real challenge lay in managing the dependencies that existed within much of this workload. For example, most MMS batch jobs typically have a number of steps. Each of these steps has their own sub-steps, and so on. Some of these batch jobs go 7 levels deep. One of the significant attractions of Cronacle was its ability to manage this level of complexity automatically. It is a great tool for maintaining dependencies.”

“On average we now run approximately 26,000 jobs a day. Cronacle is used to control all of our batch workload. This

includes collecting transaction data from the POS systems that we have in each store as well as the distribution of updated information, such as new pricing. Some jobs run as often as every 5 minutes, 24 hours a day, while others may only run once a day, once a week, or once a month, all ensuring that our sales people have the very latest information on product status and availability when serving customers. Our management team also benefits from having the very latest sales data at their fingertips. As the ability of computers and networks to process and move data has grown, Cronacle has allowed us to greatly increase the complexity level of our batch processes, while giving us the ability to perform these processes in the most timely and efficient manner possible.”

## Proactive health checking of business-critical resources

Cronacle is also being used to proactively monitor and maintain the health of The Container Store business processing environment. Connectivity between each store and headquarters, the status of T1 lines and routers and availability of The Container Store Web site are all regularly checked by Cronacle. Key health indicators, such as the integrity of data files received across the network, database availability, file system sizes, and tablespace sizes are constantly monitored by Cronacle. In the event of any problems, Cronacle can automatically initiate corrective actions. If it’s a problem that requires manual intervention, someone in Operations is immediately paged.

Jeff Harvey comments:“It used to be that the night operator had to be a highly paid technical person who understood all the business processes and their relationships to each other, just so he could complete the nightly batch processing. With Cronacle managing our overnight batch workload, the night operator is relegated to much simpler tasks.”

## Moving forward

Jeff Harvey continues:“Our current, and future IT strategy is one which seeks to keep The Container Store at the leading edge of the retail industry, while always bearing in mind that we are trying to create the perfect retail environment for our customers. Decision support software from Microstrategy will play a greater role in analyzing our customers’ buying habits, helping us to make sure we always have what the customer wants, available in the stores.”

“We feel like the better we manage our supply chain, the better we are able to satisfy the customer. Cronacle is a key element in our IT strategy and will remain so, as it allows us to easily manage all the inherent dependencies and processes which go into a successful IT infrastructure like we are building here at The Container Store. We have made Redwood’s Cronacle the core technology for both managing and monitoring virtually all our vital daily business processes.”

## The bottom line

Jeff Harvey concludes:“We have come to depend on Cronacle so much for managing our back-end processing that we couldn’t operate our business effectively without it. It is extremely hard to assign an overall value to the benefit that we realize from Cronacle but we could be looking at some pretty big numbers. With Cronacle we have a great process management product, which has the corollary benefit of enabling us to adhere to the principle of fewer, better people in our IT Operations department.”

“At The Container Store, our mission is ‘to make it better for the customer.’ With its ability to tightly manage our day-to-day business processes, Cronacle enables us to meet this goal.”