# **Improving Distribution Efficiency**

## **Current Initiatives**

## 1. Modal Shift\*

Our policy is to switch to rail freight transport from trucks, which impose a heavy environmental burden.

Our achievements so far:

### 1) Utilization rate

By volumetric ratio, 22% of our freight goes by rail container, and 78% goes by truck. These percentages are the same as FY2000.



The Environmental Report 2001 used data for a typi-cal transport route, from the Suzuka Distribution Center to the Tobu Deliv ery Center

In the Environmental Beport FY 2002, data for all transport routes were used to calculate utilization and total transport

## 2) CO<sub>2</sub> Reduction

Total transport distance decreased 1,392,382 tkm from FY2000. The breakdown of decreases is 1,064,665 t-km by rail and 327,717 t-km by truck. This reduced total CO<sub>2</sub> emissions 81 t from FY2000, the decrease breakdown being 23 t for rail and 58 t for trucks.



#### 2. Fewer Delivery Trucks

We cut CO<sub>2</sub> emission 2.9 t by switching from chartered trucks especially for Casio products to ordinary parcel delivery services.



Calculation: 9 vehicles x 925.2 km/vehicle/year x 2 t x 48 g-C x 44 / 12 = 2.9 t CO2

## **Future Initiatives**

#### 1. Joint Delivery

In cooperation with distribution companies affiliated with other manufacturers, Casio is currently pursuing joint delivery to large retailers in certain areas in Tokyo and other places.



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From now on Casio will actively continue and expand joint delivery for both internal and sales distribution.

#### An example of joint delivery in sales distribution



#### 2. Distribution-inspired Efforts to Improve Packaging Design

Casio is working on improvements to product packaging design in an effort to diminish our environmental burden through better distribution efficiency.

#### 1) Smaller box volume

- Reconsider external box material: Make cardboard as thin as possible.
- Reconsider excess space in boxes: Reduce excess space as much as possible without hindering insertion of product.
- · Simplified packaging: Packaging form should reduce use of materials to the maximum.
- Discontinue inner boxes: Discontinue inner boxes enclosing small lots, and put products directly into external boxes.

#### 2) Adopt returnable packaging

- Use resin boxboard that can be used many times.
- Use returnable simplified packaging for large products.

#### 3) Review dropping and vibration standards

 Reduce box volume and materials through a review of dropping and vibration standards.

#### Glossary

Modal shift

The freight transport shift from trucks, the current primary means, to trains and other means that carry

larger volumes in a single load

2002

CASIO Environmental Report