

# How Curaçao Ports Authority Established A Data-Driven Culture



# Introduction

Since 1981, Curaçao Ports Authority (CPA) has managed and operated all ports and bays in the Caribbean island of Curaçao, ensuring quality nautical services and safety and security in the ports in an environmentally responsible manner. Owners of the containers and cruise terminals along with the majority of wharves and harbor-adjacent properties, CPA is responsible for all commercial development and overseas promotion of their ports.

CPA and its subsidiaries provide an array of port services that include vessel traffic control, bridges and ferry operations, bunkering and provisions, nautical assistance, repair and maintenance, and training and knowledge management to clients and the port community. Beyond the services it tenders, CPA is responsible for enforcing compliance in its harbors regarding health, safety, security, and environmental regulations. **It is its vision to be the port of choice in the Caribbean region** by providing a modern infrastructure and excellent maritime and logistical services.



# Their Needs

In 2015, Curaçao Ports Authority made the decision to automate the vast majority of processes within the harbor, including the maintenance of all harbor assets, harbor traffic operations, and collection management. All manual processes were abolished, meaning **every process that could be automated, was automated**. As a result of these automations, CPA suddenly found itself in possession of massive volumes of data within a host of various internal applications.

Rather than allow that data to remain solitary within its original confinements, and rather than rely on those pre-existing systems for analysis, **CPA endeavored to take advantage of its automations by implementing a business intelligence (BI) software**. This software would be required to aggregate CPA's data in one location, empower it to make critical business decisions at breakneck speeds, deliver striking – and timely – insights into the health of its business, and **ultimately allow it to focus on what is most important to make better use of its time**. The most pressing concern held by Curaçao Ports Authority, was a lack of insight into vital processes. CPA didn't know what it didn't know, and what insight it did have, could take anywhere from days to months to generate. **A reactive, anecdote-driven culture was hindering CPA's ability to achieve its goals.**



# Their Solution

While Curaçao Ports Authority evaluated several business intelligence and data analytics vendors, its search was ultimately narrowed to the five that most closely met its requirements – Dundas BI, Tableau, Microsoft Power BI, Sisense, and Qlik. These five then underwent a rigorous testing process, whereby each software was exhaustively evaluated and scored on a weighted scale to determine which would prevail. The evaluation spanned a host of different criteria, from **features** – such as **in-memory analytics, ad-hoc reporting, dashboards, multitenancy, customization and extensibility, data notifications, and responsiveness** – to **exporting capabilities**, to **browser and system support**. Real user reviews from Gartner Peer Insights and Software Advice were taken into consideration by CPA.

**Of the five vendors evaluated, Dundas BI had compiled the highest score by a wide margin.** It was the only BI software that was able to deliver precisely what Curaçao Ports Authority had envisioned, with plenty of room for growth.



“Dundas enables us, in a world where data is distributed across several locations and platforms, to easily convert it into useful information as needed by our decision makers”

**Urvin Inocente**

IT Manager, Curaçao Ports Authority

# Why Curaçao Ports Authority Chose Dundas BI

## ✓ Powerhouse Support Network

Dundas helped Curaçao Ports Authority reduce the barriers to informed decision-making by **working hand-in-hand** with it to successfully deploy data analytics solutions across the entire organization. **Dundas' approach to support was unmatched by other BI vendors** and the ongoing service allowed CPA to continue to thrive despite the complexity of their projects.

## ✓ Completely Customizable Dashboards

With Dundas BI, Curaçao Ports Authority was able to design and customize every single dashboard element, down to the most minute of components. This level of flexibility meant CPA was able to augment its dashboards with custom imagery and design elements and could build a reporting structure that met its every requirement. No corners were cut, no compromises were made.

## ✓ Dashboard Maintainability & Repeatability

Curaçao Ports Authority relied heavily upon templates in Dundas BI to maintain graphics and other styling elements – such as banners, logos, and other repeating elements – which they could in turn apply to subsequent dashboards and reports. These templates gave CPA's views a more uniform and ergonomic look and feel and saved them immense amounts of time when creating for their subsidiaries.

## ✓ Elite Data Prep & Connectivity

Extract, Transform, Load (ETL) capability is built directly into Dundas BI via its data cube layer. Using this functionality, CPA performs data cleansing and joins tables sourced from different databases directly from the graphical user interface. In fact, with the ETL layer, CPA was able to combine financial data with operations data on one dashboard.



"Dundas BI has unique and amazing features that allow you to tell a story in infinite ways"

**Andy Gomes**

IT Engineer, Curaçao Ports Authority

# » Key Benefits

## 1 Immediate Delivery Of Reports Using Templates

**The ability to reuse elements within Dundas BI is remarkably robust.** As such, this functionality quickly became a favorite of Curaçao Ports Authority, especially considering it creates reports not only for itself, but also for its two subsidiaries, Curaçao Pilots Organization and KTK Tugs. Each report recipient maintains distinct brand elements (colors, fonts, etc.), separate from the other. By reusing templates, CPA can easily deploy reports for one entity, and then produce similar reports for the second entity without having to recreate them in their entirety. **With the use of templates, what often took two days to verify and produce to perfection can now be delivered immediately.** Other elements that CPA reuse frequently include data cubes and dashboards, the process of which can be done using a highly visual interface directly within Dundas BI.



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## Real-time Insight Into Revenues And Period-over-period Comparisons

One of the main revenue streams for the Curaçao Ports Authority is tourism. As such, it's imperative CPA is able to identify and attribute a level of importance to each major cruise line that uses its services and understand how each is contributing to overall revenues. Prior to implementing Dundas BI, these insights were generated once a month, and would take approximately one day in its entirety to simply compile the necessary information. Using dashboards built in Dundas BI, Curaçao Ports Authority can visualize the same insights in real-time (updated twice a day) and can even forecast future values. **Now, CPA can immediately see how much revenue they are generating from maritime activities.** Prior to these dashboards, there was no visibility into how Curaçao Ports Authority was performing period-over-period (PoP). To extract that information, the Finance Manager was required to manually build her own reports, which could take in excess of three days each time. **These PoP comparisons are now visible at all times on dashboards.**

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## Ability To Allocate Resources More Effectively

Curaçao Ports Authority can't make money if it doesn't actually receive it. Using Dundas BI, CPA built an Aging Overdue Invoices dashboard that gives immediate visibility into which invoices are overdue and which customers owe the most money. CPA also built a Historical Overdue Invoices dashboard that allows it to analyze historical behaviors from customers over time. Using these dashboards, commercial and financial departments **began monitoring agreement compliance, identified trends between open invoice categories, and were able to request additional resources** to ensure internal collection departments weren't shorthanded and could collect more invoices.



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## Better Budget Control And Maintenance

The Chief Operations Officer (COO) at Curaçao Ports Authority is tasked with managing the budget for the operations departments and as such, requires **insight into capital expenses and operational expenditures** to track to what extent the budget is being consumed. **Using a dashboard built in Dundas BI, the COO can visualize when individual budgets have been consumed at a preset threshold** (in this case, 85%). With the assistance of state indicators, warnings are displayed depending on the state of the budget data, alerting the COO to budgets that require his attention. He can then drill into the data at deepening granularities and navigate through it with ease. It's also necessary for the COO to **manage preventative and scheduled maintenance** and control the volume of corrective jobs. While maintenance reports were historically consumed on a weekly basis, the infrequency by which they were delivered meant critical insights were often overlooked. With Dundas BI, the COO now has access to these reports on monitors in real-time. As a result, there's been a marked change in the behavior of his subordinates; **they are now stimulated to be more critical in their spending and are no longer delayed in registering the status of projects.**



"Thanks to Dundas, I have an immediate visual comparison of our budgeted vs. actual expenses and the real-time status of all scheduled maintenance activities"

**Albert Zwueste**

Chief Operations Officer, Curaçao Ports Authority

# Final Statements

After automating nearly every process, Curaçao Ports Authority was in a position to leverage the massive volumes of data it had acquired. Dundas BI was the catalyst for taking and adding clarity to that data, empowering CPA to embrace a data-driven culture. As a result, it's been able to aggregate and analyze enterprise-level data, slash its reporting cycles from monthly to real-time, and empower its employees to perform their jobs with higher levels of precision.