

# General Specifications

GS 04L66B01-01EN

Equipment/Quality Predictive Detection Tool  
 Model CE10  
 Cloud Equipment/Quality Predictive Detection Tool  
 Model OE10  
 Offline Equipment/Quality Predictive Detection Tool

## Overview

The Equipment/Quality Predictive Detection tool creates profile trends and predictive detection models by using data from our recorders (the SMARTDAC+ and DXAdvanced series), and other recorders. The resulting profile trends and predictive detection models can be used for SMARTDAC+ <sup>(1)</sup> Equipment/Quality Easy Predictive Detection (Profile and Health Monitor functions).

\* This document refers to SMARTDAC+ series release number 5 (version R5.01) and later as "SMARTDAC+."

- This tool comes in a cloud version that can be used from a web browser, and an offline version that can be installed on a PC.
- The Profile function alerts you to deviations from a profile trend (upper and lower range of measured values). You can also check deviations from a reference waveform on screen.
- The Health Monitor function judges quality based on a predictive detection model. You can check health scores that indicate degrees of normality and abnormality.

## Product Configuration and License

The cloud or offline version of the Equipment/Quality Predictive Detection tool is required to create profile trends and predictive detection models. Additionally, a separate download license is required for each SMARTDAC+ onto which you want to download predictive detection models. A license is not required to download profile trends.

### Cloud version <sup>(1) (2)</sup>

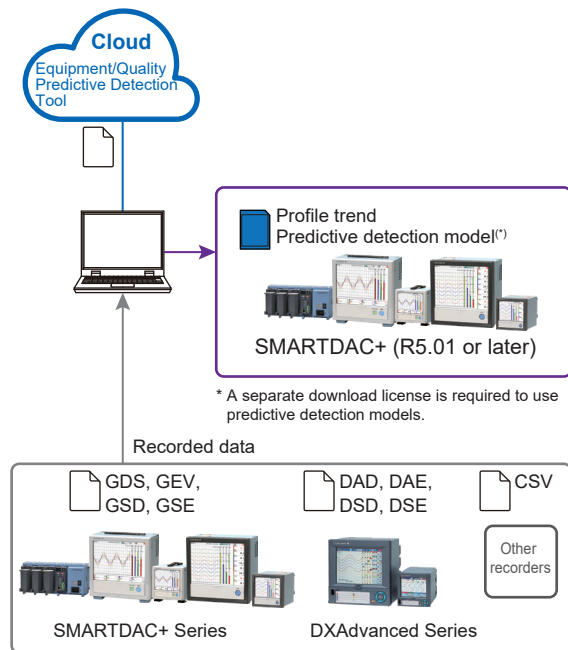
Model	Name
CE10	Cloud Equipment/Quality Predictive Detection tool (validity period : 12 months)
CE10L	Cloud Predictive Detection model download license

- 1 The cloud version is valid for 2 months after creating an account.
- 2 The cloud version is available for Japan, US, Canada, EU and UK only.

### Offline version <sup>(3)</sup>

Model	Name
OE10	Offline Equipment/Quality Predictive Detection tool with Predictive Detection model download license for 1 unit
OE10L	Offline Predictive Detection model download license

- 3 The offline version has a trial period of 60 days, during which you can use the software without a license but you won't be able to download predictive detection models and profile trends.



## ■ Equipment Capable of Utilizing Profile Trends and Predictive Detection Models

You can use profile trends and predictive detection models on the following SMARTDAC+ models.

Models: GX10, GX20, GP10, GP20, GM10

Limitations:

Item	Profile function	Health Monitor function
Release Number	R5.01 or later	
Required Options	Communication channel function (/MC option)	No limit
Functions that cannot be used simultaneously	Multi-batch and Future pen	Multi-batch
Measurement mode that cannot be used simultaneously	High speed and Dual interval	
Scan interval	500 ms or more	No limit

## ■ Functional Specification

### Create projects

With one account (offline version is one PC) you can create and save up to 30 projects. You can create profile trends and predictive detection models in each project (\*).

\* A file containing a set of recorded data, labels, your predictive detection models, and profile trends.

### Upload and display data

You can upload (or “import” with offline versions) recorded data files from the SMARTDAC+ series, DXAdvanced series, and non-Yokogawa recorders. You can switch between List and Graph views of the uploaded data.

List view: A list showing file names, numbers of channels, numbers of data points, acquisition intervals, file formats, and update dates and times.

Graph view: A graph (trend waveform) with a list of file names.

### ● Edit and save data files

You can select a file in the List or Graph view to display a zoomed graph. You can zoom in or out on the X (time) or Y (process value) axis, or crop the graph to any range. You can save the edited data as a new data file.

### ● Create predictive detection models

You can create predictive detection models from uploaded data. You can label data as OK or NG (Not Good). You can also specify arbitrary data as test data to verify the accuracy of predictive detection models.

- After creating a predictive detection model, you can compare it with the labeling of the specified test data and judgment results, and display a health score indicating the degree of normality or abnormality.

### ● Create profile trends

You can create profile trends from uploaded data. Your profile trends are displayed in a graph by channel.

- You can zoom profile trends in the X- and Y-axis directions, and drag them to perform minute adjustments.

### ● Log in (cloud version only)

Log in using your account credentials.

## ■ Available Recorded Data

You can upload the following recorded data and use it.

Recorded data files available:

Device	Format
SMARTDAC+ Series	GDS, GEV, GSD, GSE
DXAdvanced Series	DAE, DAD, DSE, DSD
Other recorders	CSV
Unique format (CSV) (*)	CSV

Maximum uploads: 50 per project

Maximum number of channels : 100 channels per file

Maximum uploadable file size: 20 MB

\* You can use CSV files you created as recorded data.

## ■ PC System Requirements

### Hardware

Item	Specifications	
CPU	Windows 10	Intel Core2 Duo E6300 or faster x64 or x86 processor
	Windows 11	Intel Core i5 or faster, and 8th generation or later Intel processor.
Memory	Windows 10	4 GB or more
	Windows 11	8 GB or more
Display	Display compatible with the OS with 1024×768 dots or better, high color or better	

### OS and confirmed browsers

Item	Specifications	
OS	Windows 10	Home (64-bit edition)
	Windows 11	Pro (64-bit edition)
Browsers	Google Chrome or Microsoft Edge (*)	
Display language	Japanese or English	

\* Only Microsoft Edge based on Chromium base is supported.

## ■ Model and Suffix Codes

### Cloud version

Model	Suffix code	Description
<b>CE10</b>		Cloud Equipment/Quality Predictive Detection tool (Validity period : 12 months)
Optional code	/AU	Predictive Detection model download license for SMARTDAC+ 1 unit

CE10 must be purchased on a yearly basis. It expires 1 year after first use.

Before ordering CE10, you need to create an account.

Model	Suffix code	Description
<b>CE10L</b>		Cloud Predictive Detection model download license
Number of units using the predictive detection model	-01	SMARTDAC+ 1 unit
	-03	SMARTDAC+ 3 units
	-05	SMARTDAC+ 5 units
	-10	SMARTDAC+ 10 units
	-20	SMARTDAC+ 20 units
	-50	SMARTDAC+ 50 units
	-A0	SMARTDAC+ 100 units

### User registration and account creation

When you start using the cloud version, perform user registration and create an account.

- Enter your email address and other required information on the web page ([www.yokogawa.com/ns/gx-ai/](http://www.yokogawa.com/ns/gx-ai/)) to register a new account.
- The registration confirmation email will be sent to the registered email address. Access the URL in the email, set an initial password and activate your account.
- After your account is activated, you will be able to access the URL for the Equipment / Quality Easy Predictive Detection tool in your registration confirmation email.

### Offline version

Model	Description
<b>OE10</b>	Offline Equipment/Quality Predictive Detection tool with Predictive Detection model download license for 1 unit

OE10 comes with a SMARTDAC+ download license for one unit.

Model	Suffix code	Description
<b>OE10L</b>		Offline Predictive Detection model download license
Number of units using the predictive detection model	-01	SMARTDAC+ 1 unit
	-03	SMARTDAC+ 3 units
	-05	SMARTDAC+ 5 units
	-10	SMARTDAC+ 10 units
	-20	SMARTDAC+ 20 units
	-50	SMARTDAC+ 50 units
	-A0	SMARTDAC+ 100 units

## ■ Ordering Information

When ordering cloud version Equipment/Quality Predictive Detection tool, it is necessary to create an account in advance.

- Model and suffix code are required to be specified.
- A license is required to download and use predictive detection models on SMARTDAC+. Specify one license for each SMARTDAC+ on which you want to use predictive detection models.

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## ■ Basic Conditions and Individual Contracts at the Time of Purchase

The warranty for this product is defined in the basic conditions and individual contracts at the time of purchase. The individual conditions are as follows.

### • Validation

Yokogawa does not guarantee the final outcome of validation work even if there is a defect in the product. For the warranty of validation services, please contact the company that performed the validation work.

## ■ Disclaimer about using for this product

- The alarms and diagnosis results are presented as the referenced information and do not guarantee their results.
- When the environment or process are changed, the predictive detection models and profile trends should be created again.
- It cannot be applied for the autonomous control, using the results presented by this function.
- The results are depending on the number of recording data and data points.

## Trademarks

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