cdmTicker – Key Usage Scenario Guide

From a plain role center to a live KPI ticker – an end-to-end walkthrough in Microsoft Dynamics 365 Business Central.

cdm IT & Consulting Services GmbH

September 2026 · App version 1.0

Table of Contents

Introduction

cdmTicker is an extension for Microsoft Dynamics 365 Business Central that adds a scrolling news-ticker band to the role center. The band shows freely configurable key figures (KPIs) as a continuous marquee – much like a stock ticker – so that users keep their most important numbers in view without scrolling the role center or hunting for tiles. The values refresh automatically every 60 seconds, and a click on any KPI opens the matching document list.

This guide walks through the key usage scenario step by step, using original screenshots from a complete walkthrough: installing and initializing the app, activating the ticker for a role center, choosing and styling the KPIs, and using the running ticker in daily work. The example used throughout is the **Sales Order Processor** role center in the demonstration company **CRONUS DE**, running all standard sales tiles of that role center together with the approval requests and the user's pending user tasks.

Key Benefits

- Live KPIs as a marquee – the ticker refreshes its values every 60 seconds without any user action
- Clickable KPIs (drilldown) – one click opens the related list, for example Sales Orders or Customer Ledger Entries; the band pauses while the mouse hovers over it
- Five built-in KPIs, any standard role center tile (cue field) from 16 supported cue tables, and the user's pending user tasks
- Configured per role center – 15 standard role centers are supported; each KPI runs in one role center or globally in all enabled ones
- Free choice of colors – background (solid or gradient) and text color via color picker or hex input
- Extensible – custom KPI types and alternative filters can be added through integration events
- No external services, no AI – all values are calculated inside Business Central under the user's own permissions

Actors in this Scenario

- Administrator / Consultant – installs the app, assigns the permission set, initializes the KPI catalog, enables role centers and configures the KPIs and colors
- Role Center User – works in the role center, reads the ticker and drills down into the underlying documents

Scenario Flow

The walkthrough follows this order: Install and assign permissions → Initialize the KPI catalog → Enable the role center → Enable and configure KPIs → Style the band → Use the ticker in the role center.

Getting Started

Requirements and Installation

cdmTicker is installed like any other extension – from AppSource or, for a manual deployment, through **Extension Management** → **Upload Extension**. It requires Business Central version 28 (platform 28.0) or later and has no dependencies on other apps.

Item	Value
Publisher	cdm IT & Consulting Services GmbH
App name	cdmTicker
Platform / application	28.0.0.0 or later
Dependencies	none
Permission set	**cdmTicker** (CDM Ticker)

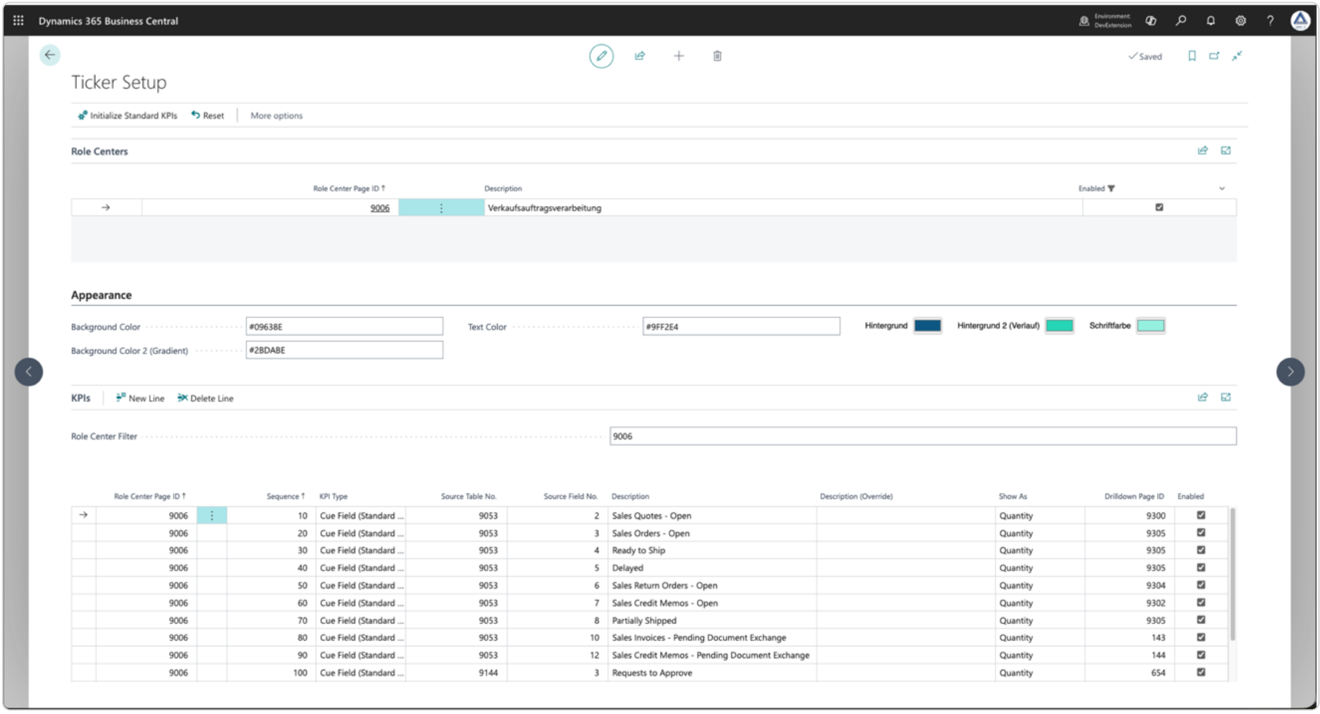
Installation Steps:

1. Install the extension from AppSource or upload the app file in Extension Management.
2. Assign the permission set **cdmTicker** to every user who should see the ticker and to every user who configures it. The set covers all objects of the app; no other app-specific permission is needed.
3. Keep the users' normal data permissions in mind: the ticker calculates every KPI under the permissions of the user who is looking at it. A KPI whose source table the user may not read is simply left out for that user – the rest of the band keeps running.

Initializing the KPI Catalog

The **Ticker Setup** page is the single place where the app is configured. Open it through Tell Me (Alt+Q) by searching for "Ticker Setup"; it is listed in the Administration category.

On first opening, the page creates its setup record and applies the default colors. The KPI catalog, however, is built on request so that you decide when the role center lines are created.



The Ticker Setup page with the Sales Order Processor role center selected and its KPI lines

Initialization Steps:

1. Open **Ticker Setup**.
2. Choose the action **Initialize Standard KPIs**.
3. The app now creates the 15 role center lines (only **Business Manager** is enabled by default), sets the default colors if all three color fields are empty, and builds the KPI catalog: for every supported role center it adds one line per countable tile of that role center's standard cue tables plus one line **Pending User Tasks**. All catalog lines are created **disabled**, so nothing appears in any role center yet.
4. Read the confirmation message – it states how many KPI lines were created.

Good to know

- The initialization merges: lines that already exist (same source table and field in the same role center) are kept unchanged, so you can run the action again after an upgrade to pick up new tiles without losing your configuration.
- The catalog lines receive sequence numbers 10, 20, 30, … per role center. Manually added lines can use any free number.
- If you ever want to start over, the action **Reset** deletes all lines and role center activations, restores the default colors and rebuilds the catalog – after a confirmation prompt.

User Settings

The ticker appears in the role center that is assigned to the user's profile (role). Open **My Settings**, check the **Role** field and make sure it points to one of the 15 supported role centers – in this walkthrough **Sales Order Processor**. Users without a chosen profile fall back to the company's default profile.

> **Note –** No personalization of the role center is required. The ticker band is embedded in the supported role centers by the app itself; whether it is shown is controlled solely by the **Enabled** flag in the Role Centers part of the Ticker Setup page.

Configuring the Ticker

The Ticker Setup Page

The page consists of three parts that are used from top to bottom:

- **Role Centers** – the list of the 15 supported role centers with their page IDs. The **Enabled** check box switches the ticker on or off for the whole role center. Selecting a line here automatically filters the KPIs part below to that role center.
- **Appearance** – the three color fields **Background Color**, **Background Color 2 (Gradient)** and **Text Color**, followed by the color picker with the same three colors as browser color controls.
- **KPIs** – the list of ticker lines: which KPI runs in which role center, in which order, under which description and with which drilldown target.

Enabling a Role Center

After the initialization only the Business Manager is enabled. In the walkthrough the ticker should run for the Sales Order Processor:

1. In the **Role Centers** part, locate **Sales Order Processor (9006)**.
2. Set **Enabled**.
3. Ask the users of that role center to reload the browser page (or switch to the role center). The band appears in the role center on the next load.

In a role center that is not enabled, the ticker collapses its row completely and takes no space at all.

Enabling KPIs from the Catalog

After the initialization, every countable tile of the Sales Order Processor role center is already listed as a disabled catalog line. Enabling a KPI is a single check box:

1. Select **Sales Order Processor** in the Role Centers part. The **Role Center Filter** field of the KPIs part now reads `9006` and the list shows only the catalog lines of this role center: the nine tiles of the Sales Cue (from **Sales Quotes - Open** to **Sales Credit Memos - Pending Document Exchange**), the two approval tiles **Requests to Approve** and **Requests Sent for Approval**, and **Pending User Tasks**.
2. Set **Enabled** on the lines you want in the band. The walkthrough enables all of them.
3. Optionally adjust **Sequence** to change the running order.

The **Description** column shows the caption that will appear in the ticker – the standard tile caption in the user's language, unless an override is entered (see "Fine-Tuning a Line"). The **Drilldown Page ID** column already carries the list that opens on a click, for example 9305 (Sales Order List) for **Sales Orders - Open** or 654 (Requests to Approve) for the approval requests.

Adding the Built-in KPIs as Global Lines

Five KPIs are built into the app and need no source table: **Open Orders Count**, **Order Backlog (Amount)**, **Shipments Today**, **Invoiced Today** and **Overdue Receivables.** They are not part of the automatic catalog and are added manually – typically as **global** lines that run in every enabled role center:

1. Clear the **Role Center Filter** field or set it to `9006|0` so that global lines are visible.
2. Add a new line and enter **Role Center Page ID** `0` – zero means “all enabled role centers”.
3. Enter a **Sequence** (10, 20, 30, …) and choose the **KPI Type**.
4. Leave **Show As** at the value that fits the KPI (amount KPIs are shown as amounts, counts as quantities) and leave **Drilldown Page ID** at 0 – the built-in KPIs open their standard list automatically.
5. Manually added lines are enabled by default; the line appears in the band on the next refresh.

Global lines run first in the band, followed by the lines of the current role center – each group in sequence order.

Adding Any Standard Tile as a Cue Field

Every countable tile of the 16 supported cue tables can be turned into a ticker line, also for role centers or tiles that are not part of the automatic catalog:

1. Add a new line and enter the **Role Center Page ID** (or 0 for global).
2. In **Source Table No.**, use the lookup. It lists exactly the 16 supported cue tables. Choosing a table sets the **KPI Type** to **Cue Field (Standard Cue)** automatically.
3. In **Source Field No.**, use the lookup. It shows only the countable fields of that table – flow fields of type Integer or Decimal that are not obsolete. Selecting a field pre-fills two more columns: **Show As** (Decimal → Amount, Integer → Quantity) and **Drilldown Page ID** from the app’s built-in mapping.
4. Set **Enabled** if it is not set already.

> **Note –** Ticker values match the tiles. For every cue table the app applies the same filters as the standard activities page of that role center – work-date, due-date, user and location filters. User- and location-related tiles (warehouse, service, approvals) therefore show user-specific values in the ticker, exactly as they do on the tile.

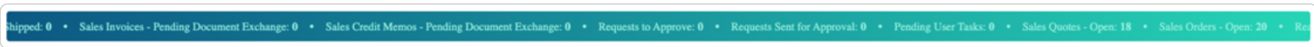
Fine-Tuning a Line

Field	Meaning
Role Center Page ID	Role center in which the line runs. `0` = global, the line runs in every enabled role center.
Sequence	Position of the KPI inside its role center. Global lines run first, then the role center’s own lines.
KPI Type	One of the seven KPI types (see “KPI Types”).
Source Table No. / **Source Field No.**	Only for **Cue Field (Standard Cue)**: the cue table and the flow field that is calculated. Changing the table clears the field and the drilldown.
Description (read-only)	The caption that actually appears in the ticker: the override if entered, otherwise the field caption or the KPI type name in the user’s language.

Field	Meaning
Description (Override)	Overrides the automatic description (up to 50 characters). An override is shown to every user regardless of language.
Show As	**Amount** – two decimals plus the currency symbol from the General Ledger Setup; **Quantity** – whole number.
Drilldown Page ID	Page that opens when the KPI is clicked. `0` = automatic: the built-in mapping for cue fields, the standard list for the built-in KPIs. A value entered here always wins.
Enabled	Only enabled lines appear in the band. Catalog lines start disabled, manually added lines start enabled.

Styling the Band

The default colors come from the Business Central logo: background `#09638E` (deep blue) fading to `#2BDABE` (turquoise), text `#9FF2E4` (mint).

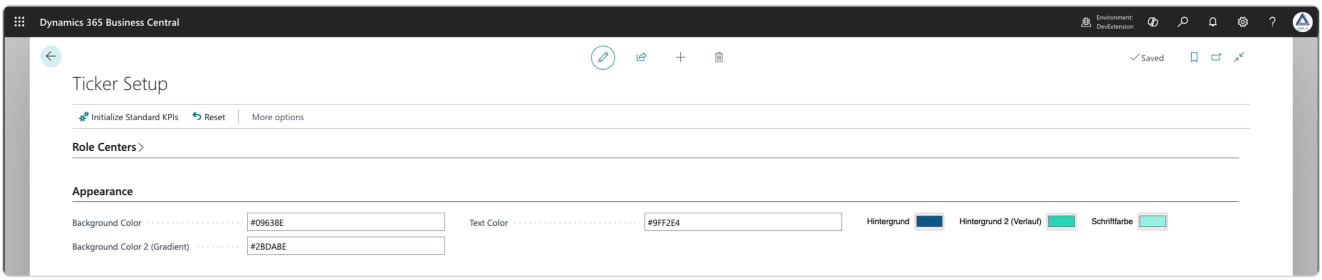


The ticker band in the default colors

To change them, use either the text fields or the color picker – both are kept in sync:

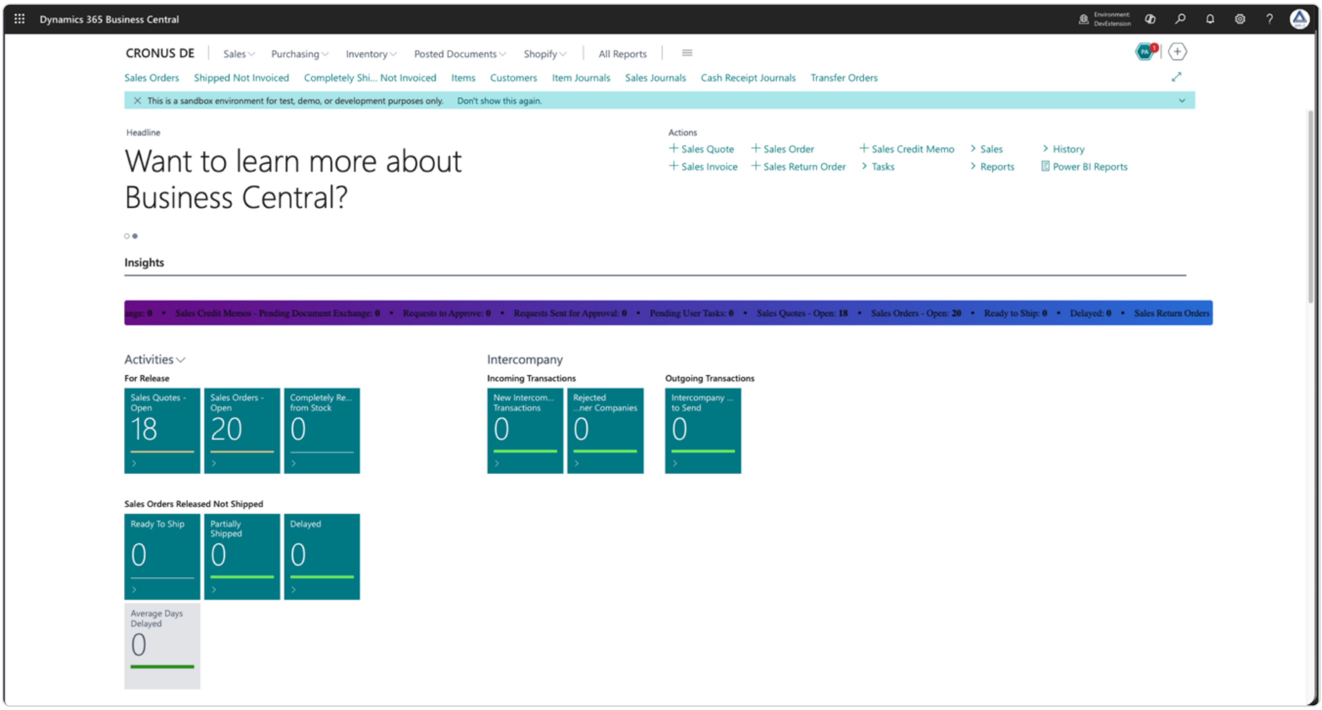
1. In the **Appearance** part, pick a color in the color picker. The hex value is written to the matching field and saved immediately.
2. Alternatively, type a value in the format `#RRGGBB` (seven characters, leading `#`, hexadecimal digits). Any other input is rejected with an error message; the color picker follows a valid manual entry.
3. Leave **Background Color 2 (Gradient)** empty for a solid background, or fill it for a horizontal gradient from Background Color to Background Color 2.
4. Reload the role center to see the result.

To return to the logo colors at any time, choose the action **Restore Default Colors** in the action bar of the Ticker Setup page. After a confirmation prompt the three color fields and the color picker are set back to `#09638E`, `#2BDABE` and `#9FF2E4`; KPI lines and role center activations are not touched.



The Appearance part of the Ticker Setup page with the default colors and the color picker

The walkthrough switches to a purple-to-blue gradient with dark text:

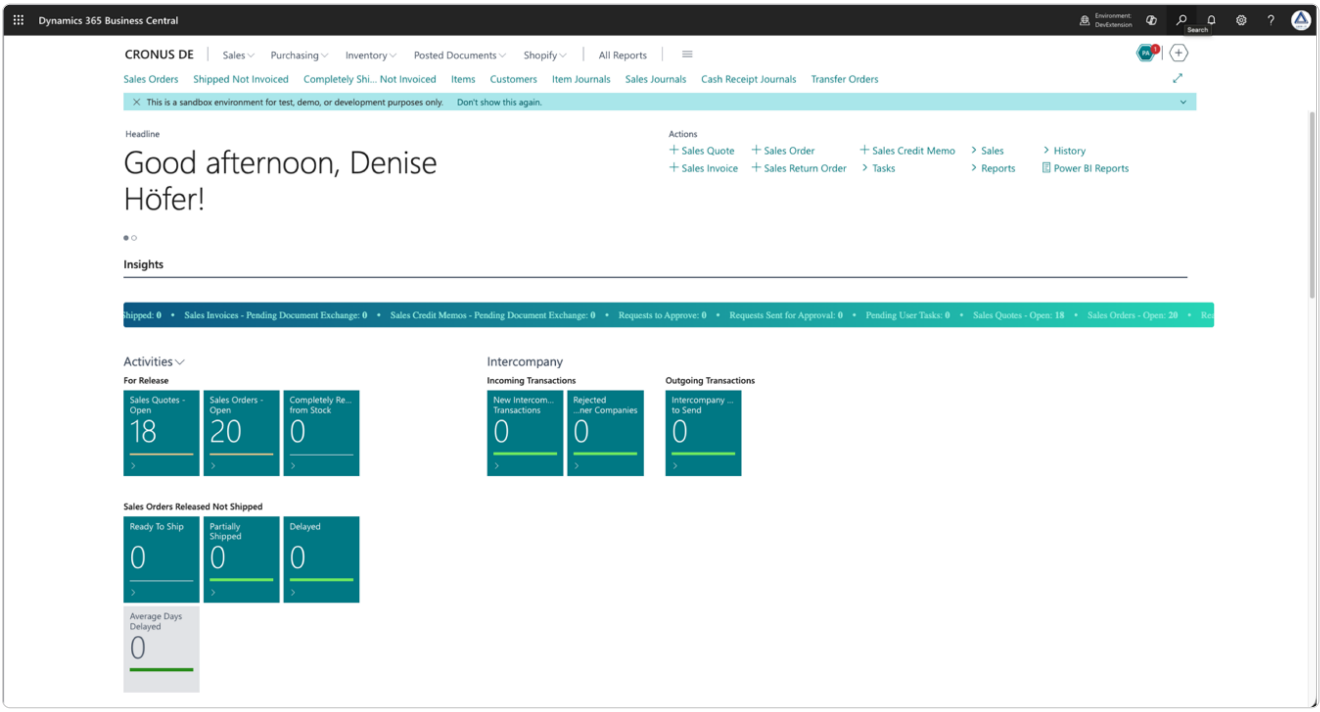


The Sales Order Processor Role Center with the band in custom colors

Using the Ticker in the Role Center

The Running Band

After the configuration above, the Sales Order Processor sees the band in its own full-width row above the activity tiles, stretched across the width of the workspace. It runs at a constant speed of 80 pixels per second and loops without a visible gap.



The Sales Order Processor Role Center with the ticker band in the default colors

Every item consists of the description, a colon and the value in bold, separated from the next item by a dot. In the walkthrough the band reads:

> Sales Quotes - Open: 18 • Sales Orders - Open: 20 • Ready to Ship: 0 • Delayed: 0 • Sales Return Orders - Open: 0 • Sales Credit Memos - Open: 0 • Partially Shipped: 0 • Sales Invoices - Pending Document Exchange: 0 • Sales Credit Memos - Pending Document Exchange: 0 • Requests to Approve: 0 • Requests Sent for Approval: 0 • Pending User Tasks: 0

The values are the same as on the tiles of the Activities part below the band – 18 open sales quotes and 20 open sales orders in CRONUS DE.

Automatic Refresh

The band requests fresh values from Business Central every 60 seconds. If nothing changed, the running animation is left alone – the marquee does not restart. If a value changed, the band is rebuilt with the new content.

Pausing and Drilling Down

1. Move the mouse over the band – the marquee pauses so you can read at your own pace, and the value under the pointer is underlined.
2. Click the KPI. The configured or automatically determined page opens: for **Sales Orders - Open** the Sales Order List, for **Requests to Approve** the Requests to Approve page, for **Pending User Tasks** the User Task List.
3. Move the mouse away – the marquee continues.

A line with **Drilldown Page ID** 0 and no automatic target (a few tiles have no meaningful list) reacts to a click with nothing – the band simply keeps running.

Language and Formatting

- Automatic descriptions – the field captions of cue fields and the names of the built-in KPI types – appear in the language of the user's session. An override entered in **Description (Override)** is shown verbatim to every user.
- Amounts are formatted with two decimals followed by the currency symbol of the General Ledger Setup; quantities are whole numbers.
- Dates used in the cue filters follow the user's work date, exactly like the tiles.

When a KPI Cannot Be Calculated

Each KPI is calculated in isolation. A line that cannot produce a value – because the user lacks permission to the source table, the source field has become obsolete after an upgrade, or the field is no longer a flow field – is skipped silently for that user. The remaining KPIs are unaffected, so a broken line never takes the whole band down.

KPI Reference

KPI Types

KPI Type	Meaning / Calculation	Default drilldown
Open Orders Count	Number of open sales orders (document type Order) in the company.	Sales Order List
Order Backlog (Amount)	Sum of Outstanding Amount (LCY) over all sales order lines – the not yet invoiced order backlog in local currency.	Sales Order List
Shipments Today	Number of posted sales shipments with today's posting date.	Posted Sales Shipments
Invoiced Today	Sum of Sales (LCY) of customer ledger entries of type Invoice posted today.	Customer Ledger Entries
Overdue Receivables	Sum of Amount (LCY) of detailed customer ledger entries whose initial due date lies before today (posting date up to today).	Customer Ledger Entries
Cue Field (Standard Cue)	Value of any countable standard tile: the flow field given by Source Table No. and Source Field No., calculated with the same filters as the original tile.	Built-in mapping per tile, for example Sales Orders - Open → Sales Order List
Pending User Tasks	Number of the current user's pending user tasks.	User Task List

A manually entered **Drilldown Page ID** takes precedence over the default for every type.

Supported Cue Tables

The lookup on **Source Table No.** offers these 16 cue tables. The right-hand column shows which of them the automatic catalog assigns; the others are available for manually added lines.

Table	Topic	In the automatic catalog
1313 Activities Cue	Business Manager activities (sales, purchasing, payments)	Business Manager
9046 Account Payable Cue	Payables / payments	manual only
9050 Warehouse Basic Cue	Warehouse (basic)	Warehouse Manager

Table	Topic	In the automatic catalog
9051 Warehouse WMS Cue	Shipping and receiving (WMS)	Warehouse Manager, Shipping and Receiving (WMS)
9058 Warehouse Worker WMS Cue	Warehouse worker (WMS)	Warehouse Worker (WMS)
9052 Service Cue	Service	Service Dispatcher
9053 Sales Cue	Sales	Sales Order Processor, Sales Manager
9054 Finance Cue	Finance	Accountant
9055 Purchase Cue	Purchasing	Purchasing Agent
9056 Manufacturing Cue	Manufacturing	Production Planner, Shop Supervisor
9057 Job Cue	Projects	manual only
9059 Administration Cue	Administration / job queue	IT Manager
9063 Relationship Mgmt. Cue	Relationship management (CRM)	manual only
9144 Approvals Activities Cue	Approvals	most role centers
CRM Synch. Job Status Cue	Dataverse synchronization	IT Manager
User Security Status	User security status	Security Administrator

Supported Role Centers

The ticker is embedded in the following 15 standard role centers. Activation happens exclusively through the **Enabled** check box in the Role Centers part of the Ticker Setup page. The last column lists the cue tables that **Initialize Standard KPIs** assigns to the role center; every role center additionally receives one **Pending User Tasks** line.

Page ID	Role Center	Standard KPI catalog (cue tables)
9022	Business Manager – **enabled by default**	Activities Cue, Approvals Activities Cue
9006	Sales Order Processor	Sales Cue, Approvals Activities Cue
9027	Accountant	Finance Cue, Approvals Activities Cue
9005	Sales Manager	Sales Cue (thematic assignment – the role center itself has no standard tiles)
9007	Purchasing Agent	Purchase Cue
9008	Warehouse Manager	Warehouse Basic Cue, Warehouse WMS Cue, Approvals Activities Cue

Page ID	Role Center	Standard KPI catalog (cue tables)
9000	Shipping and Receiving (WMS)	Warehouse WMS Cue, Approvals Activities Cue
9009	Warehouse Worker (WMS)	Warehouse Worker WMS Cue, Approvals Activities Cue
9010	Production Planner	Manufacturing Cue, Approvals Activities Cue
9012	Shop Supervisor	Manufacturing Cue
9016	Service Dispatcher	Service Cue, Approvals Activities Cue
9018	IT Manager	Administration Cue, CRM Synch. Job Status Cue
9019	CEO and President	– (no standard tiles; use global lines or manually added lines)
9024	Security Administrator	User Security Status, Approvals Activities Cue
9028	Team Member	Approvals Activities Cue (the standard Team Member cue table is marked obsolete and is deliberately not used)

Administration

Resetting the Setup

The action **Reset** on the Ticker Setup page asks for confirmation, then deletes all KPI lines and role center activations, restores the default colors and runs the initialization again. Use it to return to a clean catalog; manual lines, overrides and activations are lost.

If only the colors should go back to the defaults, use **Restore Default Colors** instead – it changes nothing but the three color fields.

Rehearsal with Performance Test Data

For a load rehearsal before the go-live, the Ticker Setup page offers two actions that are visible and executable only for users with the **SUPER** permission set:

- **Create Performance Test Data** – after a confirmation prompt, creates about 10,000 records per KPI type in the ticker's source tables (sales orders and lines, posted shipments, customer ledger entries, detailed customer ledger entries, user tasks, purchase orders). A progress dialog shows the current KPI type, the number of records inserted out of the total, the percentage and a progress bar. Every record carries the marker `CDMPERF` in its document number or title.
- **Delete Performance Test Data** – removes exactly those records again; other data is untouched.

> **Note –** The creation is refused with an error message on a production environment in the Business Central online (SaaS) infrastructure. Run it in a sandbox, a test environment or an on-premises installation only, and delete the data after the rehearsal.

Troubleshooting

Symptom	Cause	Remedy
No band in the role center	The role center is not enabled, or the user's profile points to a role center that is not supported	Set **Enabled** for the role center in Ticker Setup; check the role in My Settings; reload the browser page
Band is visible but empty	No enabled line for this role center and no global line	Enable catalog lines for the role center or add global lines (Role Center Page ID 0)
One KPI is missing for a user	The user lacks read permission on the source table, or the source field is obsolete	Grant the data permission, or replace the line with a current field
Ticker value differs from the tile	Different work date, or a manually changed filter via an event subscription	Compare the work date in My Settings; check custom subscribers of OnBeforeApplyFilters

Symptom	Cause	Remedy
Color input is rejected	Value not in the format `#RRGGBB`	Enter seven characters: `#` followed by six hexadecimal digits, for example `#09638E`
Description appears in the wrong language	An override is entered on the line	Clear **Description (Override)** to fall back to the automatic description in the user's language
Click on a KPI does nothing	Drilldown Page ID is 0 and the tile has no mapped target	Enter the desired list page in **Drilldown Page ID**
Performance test actions are not shown	The user does not have the SUPER permission set	Sign in as a SUPER user in a non-production environment

Extensibility (for Developers)

- The enum **CDM Ticker KPI Type** is extensible – add your own KPI types in an extension.
- **OnFormatCustomKPI** (codeunit CDM Ticker Data Mgt.) – calculate the value of a line yourself; set IsHandled to replace the standard calculation.
- **OnBeforeApplyFilters** (codeunit CDM Ticker Cue Filters) – override or extend the cue filters.
- **OnCreateTestDataForCustomKPI** and **OnDeleteCustomTestData** (codeunit CDM Ticker Perf. Test Data) – supply and remove rehearsal data for custom KPI types.

Data Handling

- cdmTicker calculates every value inside Business Central. No data leaves the environment, no external service is called and no AI is involved.
- Every KPI is evaluated under the permissions of the user who views the band. The app does not elevate permissions; a value the user could not see on a tile or in a list is not shown in the ticker either.
- The setup data of the app (role center activations, KPI lines and colors) is stored in three tables of the extension in the company's database and is classified as customer content.
- The app registers a publisher telemetry connection (Azure Application Insights) as foreseen by the Business Central platform. The platform sends operational signals about the extension – for example errors and performance events – to the publisher; KPI values and business data are never part of that telemetry.

Summary

In a few minutes inside Business Central, a plain role center became a live dashboard band:

1. **Install and initialize** – assign the permission set, open Ticker Setup and choose Initialize Standard KPIs; the catalog of all countable tiles is created for 15 role centers.
2. **Enable and select** – enable the role center, tick the KPIs you want, add the built-in KPIs as global lines, and add any other tile as a cue field with lookups for table and field.
3. **Style** – pick background, gradient and text colors with the color picker or as hex values.
4. **Use** – the band refreshes every 60 seconds, pauses on hover and opens the matching list with one click; values respect the user's permissions and language.

The result: the numbers that matter are always in view – for every role, in every enabled role center, without leaving Business Central.
