

SYNERGY 2026
DEVPARTNER CONFERENCE

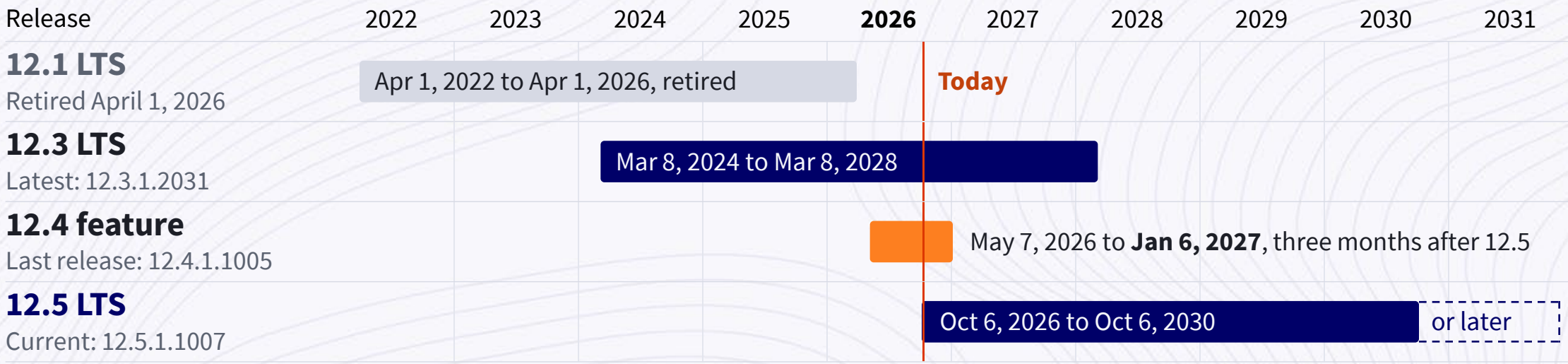
Synergy Product Update: Latest Features & Roadmap 2026

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Agenda

1	**Release strategy refresher**	LTS vs. feature releases and where we stand today
2	**The year at a glance**	Every Synergy/DE, SDI, SIP, Harmony Core, and CodeGen release since last October
3	**Synergy/DE**	12.5 LTS, high-cooperative ISAM, .NET 10, and the 12.3 LTS updates
4	**SDI and compilers**	Visual Studio 2026, SDK projects, and new language features
5	**Roadmap**	Now / Next / Later and the new products you'll see this week
6	**Open source and streaming**	Harmony Core 10, CodeGen, and the Streaming Integration Platform
7	**What this means for you**	Upgrade guidance, resources, and Q&A

12.5 Is Supported Until at Least October 2030



LTS releases are the odd ones (12.3, 12.5)

Quality, security, and platform updates only, roughly every two years in step with .NET. Supported for at least four years, or one year after the next LTS, whichever is later.

Feature releases are the even ones

New capabilities as they're ready. Supported until three months after the next release, which is also where their fixes go.

resources.synergex.com/sitereleasestrategy. SDI: only the current build (2026.08.1692) is supported.

18 Releases in 12 Months

Month	Date	Product	Version	What it brought
Oct 2025	Oct 7	SDI	**2025.10.2527**	Stability fixes
Nov				
Dec	Dec 3	SDI	**2025.12.2909**	SDK projects, Linux builds, experimental VS 2026
Jan 2026				
Feb	Feb 5	SDI	**2026.02.1098**	Visual Studio 2026 fully supported
Mar				
Apr				
May	May 7	Synergy/DE	**12.4.1.1005**	Feature release: HC ISAM, .NET 10
	May 28	SDI	**2026.05.1464**	Partial members, extension members
	May 29	Synergy/DE	**12.3.1.2026**	LTS update: SQL OpenNet and HTTP fixes
Jun	June	SIP	**2026.06.1060**	Streaming Integration Platform released, available in product downloads
Jul				
Aug	Aug 31	SDI	**2026.08.1692**	Declare extension members, null-conditional assignment
Sep	Sep 2	Synergy/DE	**12.3.1.2028**	LTS update: TLS 1.3 connection hang fixed
Oct	**Oct 6**	**Synergy/DE**	**12.5.1.1007**	**12.5 LTS, the first LTS with everything from 12.4**
	Oct 7	Synergy/DE	**12.3.1.2031**	LTS update for Linux and AIX only

Plus three Harmony Core and four CodeGen releases. Release notes: resources.synergex.com/SiteReleaseNotes

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12.5 LTS, high-cooperative ISAM, .NET 10, and the 12.3 LTS updates

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What’s in 12.5 LTS

12.5

The first LTS with everything from the 12.4 feature series

12.5.1.1007 shipped October 6, 2026. Supported to October 6, 2030, or one year after the next LTS. It rolls up four 12.4 releases (August 2024 to May 2026).

High-cooperative ISAM (ISAM 6.5)

Extend records and add or remove keys while applications use the file

.NET 10

Default target; NuGet packages ship .NET 8 and .NET 10 builds; .NET 6 is retired

LTTng tracing on 64-bit Linux

Low-overhead tracing of I/O statements, routine calls and license activity

Repository schema as separate files

One .sdl file per definition, so it works with source control

SQL Connection

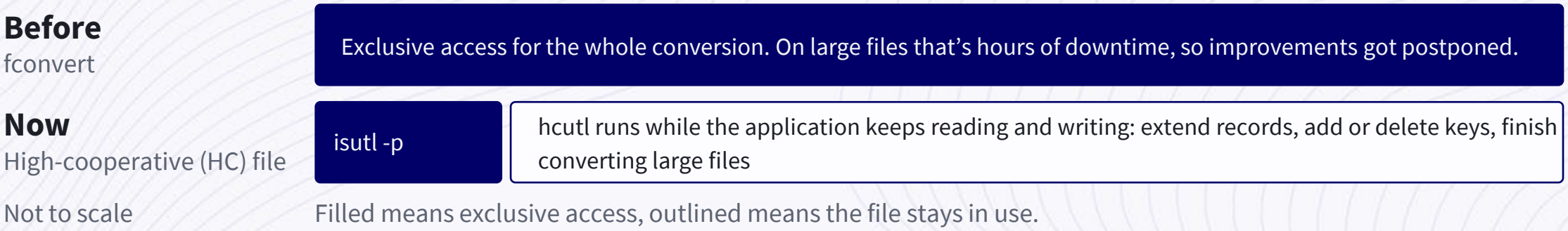
Stored procedure return values, and %SSC_MAPMSG maps the real error code

Only in 12.5, not in any 12.4 release

OpenVMS debugger BREAK routine in shared images, hcutl -f and virtual-key options, safer size limits for non-qualified duplicate keys, and five months of runtime, SQL Connection, TLS, and installer fixes.

Download and release notes: resources.synergex.com

Change an ISAM File Without Taking the Application Down



Three changes run online, and getting started

Extend record length

`hcutl -e`

Code first: Size buffers for the new length before you run it. Takes effect immediately for every record.

Add a key

`hcutl -ka`

No code change needed; existing I/O keeps working. The key is usable once its index build completes.

Delete an alternate key

`hcutl -kd`

Code first: Stop reading through the key. It is unusable the moment it's deleted.

Getting started

`,hc` on new files, `isutl -p -qfile=hc file.ism` on existing files

Needs 12.5 in production and ISAM 6.5 readers (12.4.1.1005 or later) in every product that touches the file.

Prerequisites, limits, and live demo: Tate Chamberlain's HICO session, Wednesday 9:00 am · Docs: "High-cooperative ISAM files" (12.5)

.NET 10 by Default, and No 32-Bit Linux After 12.3

Synergy .NET default target	**.NET 10**
NuGet packages	**.NET 8 and .NET 10 builds**
.NET 6 builds	**Retired**
Installation minimum	**.NET Framework 4.8**
Harmony Core 10	**.NET 10, EF Core 10, ASP.NET Core 10**

32-bit Linux support ends

March 8, 2028

That’s when 12.3 LTS support ends. 12.4.1.1005 and every 12.5 release have no 32-bit Linux build, because our Linux toolchain dropped 32-bit and we keep it current for security updates.

Also: Professional Series Workbench now has its own installer instead of shipping in the 32-bit Windows install.

Release notes: resources.synergex.com/SiteReleaseNotes

Three Fix-Only Updates to 12.3 LTS

Release	Shipped	Main fixes
12.3.1.2026	May 29, 2026	vtxnetd now survives invalid traffic on its port and heavy connection load. HTTP/HTTPS chunked responses come back complete. Synergy .NET on Linux no longer interferes with .NET child processes. Fixes for ISAM null-key replication, DFLAG 3 on Unix, and XML encoding.
12.3.1.2028	Sep 2, 2026	**Encrypted connections no longer hang on Windows 11 and Server 2022 and later** (TLS 1.3 handshake timing). Also xfServerPlus packets over 16 KB, -scl=4 on Unix, nethost.dll kept on upgrade, debugger argument values with bounds checking, and an updated xfODBC Client.
12.3.1.2031	Oct 7, 2026 Linux and AIX only	Terminal drawing in the rightmost column of 80-column terminals, including after a resize, and Ctrl+C after SEND or RECV with system options 7 and 10. Both fixes are in 12.5.1.1007 too.

Windows and OpenVMS stay on 12.3.1.2028. 12.3 LTS is supported until March 8, 2028.

Full lists: resources.synergex.com/SiteReleaseNotes

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Visual Studio 2026, SDK projects, new language features, and the everyday fixes

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Visual Studio 2026 Went from Experimental to Supported in Two Months

December 2025, SDI 2025.12.2909

Experimental

Installs into VS 2026, but only alongside VS 2022.

February 2026, SDI 2026.02.1098

Supported

Standalone VS 2026 option. Install on a VS 2026-only machine, or pick both and get SDI in 2022 and 2026 side by side.

Since then

Refined

Reference Manager for traditional projects, silent installs (error 1603), package load order, and the debugger with newer .NET SDKs.

You need

Visual Studio 2022 17.10 or later (not 17.14.9 to 17.14.11), or Visual Studio 2026, plus .NET Framework 4.8 to install. Upgrading an old SDI on a machine with both VS versions? Uninstall it first.

Templates

Synergy WinForms and WPF templates are deprecated after Microsoft's changes, and non-SDK templates will go in a future update. Existing projects keep working.

Linux-Targeted Synergy Projects Now Build on Linux

- SDK-style projects with self-contained tooling, so a Linux CI pipeline can build them
- The SDK version is pinned in global.json: every machine and build agent compiles the same way
- Smaller, portable project files, like the rest of .NET
- Non-SDK projects keep working; convert when you're ready (see the docs)

Use Synergy SDK 1.0.0.6 and keep all your Synergy SDKs on the same version. Script projects aren't SDK-style yet; that was postponed after a late issue.

Nine templates

.NET
Class Library, Console App, Multiple Mainline

Traditional
ELB, OLB, DBR application, Multiple Mainline (DBR), Unit Test

Repository
Synergy/DE Repository

NuGet packages

```
Synergy.Net
Synergy.Repository
Synergy.Traditional
Synergy.Traditional.UnitTest
```

Keeping Up with .NET

February
SDI 2026.02.1098

- Consume params collections over Span<T>, ReadOnlySpan<T>, and List<T>
- C# user-defined compound assignment operators just work
- OverloadResolutionPriority attribute
- Indexers and FOREACH over spans

May
SDI 2026.05.1464

- Consume extension members, including extension properties
- Partial constructors, properties, indexers, and events
- allowbyref: byref structs as type constraints and as interfaces
- ^NAMEOF (List<>) on unbound generic types
- params on delegates

August
SDI 2026.08.1692

- Declare your own extension members (BEGINEXTENSION)
- Declare params collections
- Null-conditional assignment with ?. and ?[
- Inline arrays, consumed and declared
- Implicit span conversions

Already merged for the next SDI update: interfaces on ref structs and static virtual interface members.

New Compiler Diagnostics, and One to Watch When You Move to 12.5

In 12.5, every .ENDIF raises **E_BADCDIR**, including on the false side of a conditional. Code that has been compiling quietly may now show errors that were hidden.

W_URESULT	An assignment operator (+=, -=, ...) combined with a Boolean comparison; add parentheses
W_URESULT	The scope operator [] on a pseudo array, which only touches the first element
E_INMTHD **W_RETRQD**	A missing MRETURN is no longer masked by THROW, and a missing FRETURN is reported
E_INVTYP	An extension method called on a type instead of an instance

Also changed

- -qrelaxed:extinit keeps INIT of a group in an external common compiling, with a warning
- -qrntcompat=12050100 sets DBLV125
- E_TYPPARM names both types
- A local named like a keyword (store) no longer trips E_INVSTMT
- An undefined field in a data division initial value gives NFND, not a compiler crash

Compiler fixes ship with every SDI build. Also in 12.5: no false E_BADRNG on dimensionally scoped real arrays.

Smaller SDI Fixes You'll Notice Day to Day

Repository workflow

- Schema files written when Repository exits, as one file or one per definition
- Reorganized Repository project page
- Works with any supported Synergy/DE, since SDI ships its own Repository
- MDU, Composer, and the Synergy command prompts use the project's repository settings

Large solutions

- Changing the startup object no longer rebuilds every mainline (it lives in .synproj.user now)
- No hangs adding, referencing, or renaming files, and no crash loading big solutions
- PDB files publish with mainline projects

IntelliSense and installs

- Find All References no longer breaks IntelliSense 30 minutes later
- .INCLUDE files with external functions resolve correctly
- Synergy DBL settings survive changes to general editor settings
- Silent installs no longer fail with error 1603

Debugging

- !openelb and !set break in the Immediate window, for OpenVMS shared images and also for Windows and Linux remote debugging
- Breakpoints in OpenVMS shared images after attach
- No hang stepping into an XCALL after attaching to a running program

Every SDI build: resources.synergex.com/SiteReleaseNotes (filter by SDI)

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Synergy/DE Roadmap: Two Now Items Have Already Shipped

Now
In progress, for an upcoming release

High-availability ISAM
Shipped as high-cooperative files in 12.4.1.1005 and 12.5 LTS

.NET 10+ support
Shipped in 12.4.1.1005 and 12.5; language work continues in SDI

SQL Connection rebuild
In-house driver written in Rust, no third-party dependency

xfODBC modernization
New ODBC driver built on the PostgreSQL wire protocol

ISAM REV 7
Long-term project: locking, caching, and concurrency

Next
Planned for implementation

Thread-local environment variables
Per-thread values for multi-threaded applications

Mouse event support
UI Toolkit on *nix systems

Later
Under consideration

- Runtime telemetry
- Select class TEMP tables
- Thread-safety warning mechanisms
- ISAM auto-reindex logging

Also exploring, not on the roadmap yet

xfServer client support on OpenVMS (a prototype has worked end to end against a live xfServer), and ANSI escape sequences in the Windows GUI runtime so ported terminal applications render and take function keys the way they do under a terminal emulator.

synergex.com/roadmap. No plans are set in stone until they're included in a release.

SDI Is Moving to the Common Project System

Now

In progress, for an upcoming release

Move to the Common Project System
In development, with a migration utility for existing projects

Visual Studio 2026+
Shipped in SDI 2026.02; each new VS release is tested as it arrives

.NET 10+ language features
In every SDI update

Static code analysis
New front end, readable standard-format reports, MSBuild onboarding

Next

Planned for implementation

Full support for VS Code
Synergy DBL beyond Visual Studio

Later

Under consideration

- Compile performance: faster builds, more responsive IDE
- Synergy .editorconfig experience in Visual Studio
- .NET support for external functions and undefined XCALLs
- Traditional Synergy NuGet support
- Repository schema IntelliSense

synergex.com/roadmap. No plans are set in stone until they're included in a release.

Visual Studio 2027





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Harmony Core 10, CodeGen, a year of the Streaming Integration Platform, and how we build and test

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Moving a Harmony Core Project to .NET 10

Install the .NET 10 SDK, then run:

```
harmonycore upgrade-latest
harmonycore regen -p
```

Rebuild, and fix any hand-written DBL the stricter compiler complains about.

You need Synergex.SynergyDE.Build 26.8.1648 or later. Don’t mix 8.x packages with net10.0: it builds cleanly and fails on the first EF query. The migration guide lists every error you might hit.

In Harmony Core 10.0.43

August 30, 2026, on nuget.org

- Every package on .NET 10, EF Core 10 and ASP.NET Core 10
- SSH.NET 2026.0.0 and MessagePack 2.5.301 clear the NuGet audit warnings
- Custom JWT authentication generates working code out of the box
- CLI upgrade flow fixed (version comparison, local cli-tool-versions.json wins)

Earlier releases: 8.0.117 (Nov 11, 2025) added limited group by and aggregates and JWT templates, and 8.0.118 (Mar 23, 2026) fixed a Traditional Bridge shutdown race.

What’s next for Harmony Core: Jeff Greene, Thursday 12:50 pm. Customer stories: ASI and Jack Henry, Wednesday.

CodeGen's RepositoryAPI Is Now on nuget.org

Since CodeGen 6.1.5 (July 20, 2026) you reference the Repository API like any other NuGet package. Harmony Core, the Streaming Integration Platform tooling, and your own utilities already do.

Also new this year

6.1.5	Repository.FlattenArraysAndGroups flattens array and group fields for environments that can't handle them
6.1.6	-oks expands overlay key segments into the fields they overlay, handy for database indexes that don't have ISAM's eight-segment limit

6.1.2, 6.1.3	Three template tokens
	`<FLOOP_STRUCTURE_COUNT>`
	`<IF MULTIPLE_STRUCTURES_ASSIGNED>`
	`<STRUCTURE_TAG_EXPRESSION>`

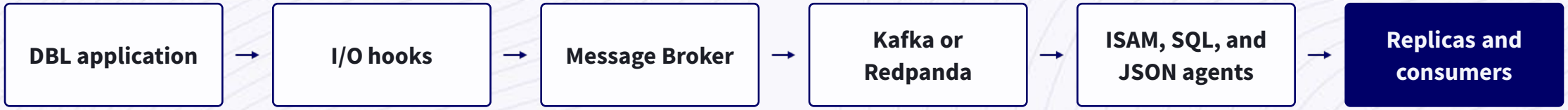
Before you upgrade

CodeGen is built with Synergy/DE 12.4.1.1005 and needs 10.3.1b or later. Harmony Core 10 pins the matching CodeGen, so upgrade the two together.

There was no 6.1.4; it was skipped after a publishing error.

Releases and documentation: github.com/SteveIves/CodeGen

The Streaming Integration Platform, One Year Later



Origin systems on Windows, Linux, or OpenVMS. One Configuration Server for every agent. Snapshots in S3-compatible storage seed and repair replicas.

You get near-real-time copies of your ISAM data in SQL Server, in Synergy ISAM on another system, or as JSON events, without touching the application.

New since last year

- Released in June, with official installers in the Resource Center
- The JSON Agent publishes every change as a JSON message
- One Configuration Server manages settings for all agents
- Windows services, Linux RPMs, and TLS-protected dashboards for production

This week

Thursday 9:55 am, The Full Toolkit (Steve Ives)
Thursday 2:15 pm, hands-on workshop. Bring a laptop.

Docs: sip.docs.synergex.com. Installers: Resource Center, resources.synergex.com

Every Synergy/DE Build Is Tested on Windows, Linux, AIX, and OpenVMS

Windows

Build and test suites

Linux

Oldest and newest RHEL-compatible releases, in containers

AIX

Build and test suites

OpenVMS

I64 and AXP

xfServer is tested against a matrix of server configurations in Windows and Linux containers. Signed installers and NuGet packages come straight out of the pipeline, from one version source.

Before a release

- SonarQube and smoke tests for every project type on each SDI build
- UI tests on Visual Studio 2022 and 2026 VMs, and installer and upgrade tests on VMs provisioned for each run
- Crash and hang trends from the SDI Improvement Program (anonymized, no personal data or code)

AI in the loop

AI makes us more productive. We use Claude Code and Codex to

- Test our changes and find different edge cases
- Add more tests
- Investigate areas that would take a lot of time to go through manually
- Help us do PR reviews

More on this: Doing More with More, Taras Yakovchuk and Michael Oleshchuk, Thursday 11:00 am

So, What Should You Do Next?

You run 12.3 LTS Supported to March 8, 2028	Linux and AIX: Take 12.3.1.2031. Windows and OpenVMS: You're current on 12.3.1.2028. Plan the move to 12.5 when it fits your schedule; it starts a new four-year window. Still on 32-bit Linux? Move to 64-bit first, because 12.3 is your last stop.
You run 12.4 **Support ends January 6, 2027**	Move to 12.5.1.1007 before January. It has every 12.4 feature plus five months of fixes and HC refinements that 12.4 will never get. If you created files in 12.4.1.1005 with long non-qualified duplicate keys, reload them.
You want HC ISAM or .NET 10	Run 12.5 in production, and make sure every product that touches an HC file is 12.4.1.1005 or later. Target .NET 10 for Synergy .NET (.NET 8 is still in the packages). See Tate's HICO session on Wednesday at 9:00 before you convert production files.
You develop in Visual Studio	Install SDI 2026.08.1692 for Visual Studio 2026, SDK projects, and the new language features.
You use Harmony Core or CodeGen	Move Harmony Core projects to 10.0.43 with harmonycore upgrade-latest, then regen. Update CodeGen to 6.1.6 (Harmony Core 10 pins the matching version) and pick up RepositoryAPI from nuget.org.

Not sure where to start? Support can help you plan any of these: **support@synergex.com**

Where to Find All of This

Release notes
resources.synergex.com/SiteReleaseNotes
Searchable, and filterable by product and version

Synergex blog
synergex.com/blog
Release announcements and technical articles

Roadmap
synergex.com/roadmap
Now / Next / Later, updated every quarter

Documentation
synergex.com/docs
Synergy/DE 12.5 and 12.3

Streaming Integration Platform docs
sip.docs.synergex.com
Components, installation and configuration

DBL Talks
youtube.com/Synergex
Our video podcast: I/O basics, the Select class, I/O hooks so far

Questions about a release, a new product, or an upgrade plan? Email **support@synergex.com** and they'll answer or pass you to the engineers who built it.

Open source: github.com/Synergex/HarmonyCore and github.com/SteveIves/CodeGen

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Questions?

We’re both here all week, so grab either of us between sessions.

Support
support@synergex.com

Roadmap
synergex.com/roadmap