CURSOR / generation 1 — User manual

Library: `src/lib2/cursor/1/`
Edition: 2026-11-18, source/document review (documentation only)
Qualification: CLARITAS-003 source/native parity recorded; actual integration, display and cross-machine behavior must still be validated by the consumer.

What this member does

Provide a transient blinking underscore cursor over PB-2000C/AI-1000 text cells using a ROM0 display service.

Public interfaces

Entry point or group	Inputs, outputs and behavior
`SYS540_INIT`	Initialize private cursor state once; does not touch display.
`SYS540_PLACE`	`$6` display cell 0..127; `$16` underlying ASCII; position and show cursor.
`SYS540_POLL`	Nonblocking blink poll: `$18=1` when transition due, 0 otherwise.
`SYS540_TOGGLE`	Render due blink transition after polling.
`SYS540_HIDE / SYS540_SHOW`	Restore underlying glyph / display cursor.
`SYS540_STOP`	Hide cursor, mark inactive before leaving application.

How to integrate

Include `sysv540.inc` for contract and `sysv540.s` at its intended absolute location; `CAL SYS540_INIT`, `CAL SYS540_PLACE` with `$6/$16`; periodically call `SYS540_POLL` and `SYS540_TOGGLE` when due; finish with `SYS540_STOP`.

Composition sketch (not an independently assembled client):

```
#INCLUDE (lib2/cursor/1/sysv540.s)
; Supply the dependencies, RAM, bank context and symbols described above.
        CAL     SYS540_INIT
```

Environment, dependencies and memory

`sysv540.s` contains `ORG &H7000`, uses ROM0 `&H0197` and private RAM1 `2F20..2F2B`. Valid ROM2 caller, stack and bank mapping; returns UA14. Contract in `sysv540.inc` limits register effects; flags not preserved.

Limits and evidence

Do not write private RAM1 state, invoke `_SYS5_*` internals, or assume LCD placement/callback compatibility without integration testing.

This documentation does not introduce a new build or runtime PASS. Source equivalence, native assembler parity, emulator execution and physical-machine evidence remain distinct.

Actual source and further reference

- This exact member folder in Google Drive
- Source modules: `sysv540.s`, `sysv540.inc`.
- Further contracts/source notes: sysv540.inc. These may include dated donor paths or older acceptance statements.
- For a new consumer, pin exact source files and hashes, verify full include closure, inspect register/bank/resource conflicts and test the resulting application on each claimed target.

Praeteritum ad futurum servamus.