Using Custom PCell Evaluators in Expert OA

Expert supports OpenAccess-based PCells in OA mode (expert -oa). Typically, this type of PCell requires a 3rd-party evaluator plugin provided either by the EDA tool or by the end user. To comply with industry standards, Expert ships with an evaluator for Python-based PyCells.

Some PDKs may require that a specific version of the PyCell evaluator be used in place of Expert's default version. To circumvent the default evaluator from being loaded, the user can set the environment variable SILVACO_OVERRIDE_PCS=1. This will prevent LD_LIBRARY_PATH/PATH and OA_PLUGIN_PATH from being amended with relevant paths to the Silvaco installation. In addition, PYTHONHOME and PYTHONPATH will be left unmodified by Expert.

When SILVACO_OVERRIDE_PCS is set, the user can prepend to LD_LIBRARY_PATH/PATH/OA_PLUGIN_PATH by setting SILVACO_PREPEND_LD_LIBRARY_PATH (Linux only), SILVACO_PREPEND_PATH (Windows only) and SILVACO_PREPEND_OA_PLUGIN_PATH (both Linux and Windows).

NOTE! The supplied PyCell evaluator should use a version of OpenAccess matching that of Expert. The versions of OpenAccess and the default PyCell evaluator used by Expert are as follows:

EXPERT VERSION(S)	OPENACCESS VERSION	PYCELL EVALUATOR VERSION
5.2106.X – 5.2204.X	22.50.p011	L-2016
5.2207.X	22.50.p011	L-2019 (Linux) L-2016 (Windows)

Using a Non-PyCell Evaluator

For PCells that require an evaluator other than the PyCell evaluator, the aforementioned SILVACO_PREPEND_XXX environment variables can still be used—it is not necessary to set SILVACO_OVERRIDE_PCS in this case.