

# ASIC Software License Charging Policy

## PPD Policy 035-v01

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### Purpose

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This Policy establishes the guidelines and mechanism for calculating annual charges for the cost of licenses for ASIC design software used by engineers in the PPD ASIC department. ASIC licenses are identified as Basic and Advanced. Basic licenses are analogous to other Fermilab engineering software (ANSYS, NX/Teamcenter, AutoCAD, etc) which are supported thru CSS pool. These software licenses are shared among the engineering team who use it in support of the lab mission and projects and not identifiable to one cost objective. These costs are pooled in CSS as a labwide cost. Advanced licenses are more specific to R&D and are paid directly by the benefitting project or pool.

### Effective Date

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This policy goes into effect on August 25, 2022 and is applicable for the 2022 fiscal year.

### Policy

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The ASIC Development Facility must pay annually for the licenses required for the software design tools used by engineers working at the facility. These design tools can be split into two main categories: “Basic” tools that are used across a wide number of activities for more common tasks, and “Advanced” tools used for new applications often directed toward the development and use of new technologies. Based on these two categories, licenses for Basic software should be funded through overhead (specifically Common Site Support (CSS)) following the current policy for engineering design tools across the lab. Advanced tools should be supported by the Detector Test Facilities B&R, because those tools will be used in support of ongoing R&D efforts.

Details of the application of this funding model to the annual purchase of ASIC software licenses are given below.

### Determination of annual license costs

The head of the PPD ASIC Department is responsible for the decision annually about which tools are required to support the activities of the ASIC development facility, and therefore which licenses should be purchased within the annual budget allocations for CSS and Detector Test Facilities. Each year, the PPD ASIC Department provides a spreadsheet listing each license (typically about 75 in total), its categorization as Basic or Advanced, and other relevant information including description, functionality, product number, vendor, cost, purchase order number, and dates of validity. The distribution of license costs must be determined each year because (i) some design tools may migrate from Advanced to Basic, as described below, and (ii) licenses for specific design tool functionality are sometimes split or merged by the vendors. The bulk of licenses will be purchased early in the fiscal year, so the distribution of costs for the

coming fiscal year must be determined sufficiently early to make requests for any required increases in funding from CSS or the Detector Test Facilities B&R.

The cost of the license should be accounted for in the same fiscal year as the service term of the license. Due to the timing of the license renewals, it is understood that the requisition and obligation may not fall into the same fiscal year as the cost and service term. If the service term spans two fiscal years, then the requisition, obligation, and cost should be accounted for consistently from year to year, so that multiple years of licenses are not obligated or costed in the same fiscal year.

## Evolution of the Basic set of design software

It is expected that the licenses for new design tools and tools associated with new technologies will initially be considered as Advanced because they will first be used in only one or a few applications. However, as the engineers gain experience with these tools and the associated technologies become more common the license cost will migrate into the Basic program. Similarly, it is expected that as the use of a specific design tool becomes less common, it will either move out of the Basic program or be dropped completely. Therefore, the Basic set of software will vary from one year to the next and the distribution of the associated costs will be redetermined each year.

## Owner

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Responsibility for reviewing, updating, and communicating changes to this policy rests with the Division Head.

## Review Cycle

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This policy is to be reviewed at least every three years.

## Definitions

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**Basic:** Licenses providing functionality for design at established technology nodes (e.g. 130 nm) or for design of standard analog and digital circuits, in general. This includes analog capability for schematic entry, basic layout, and simple analog simulation, as well as digital capability for small design synthesis, place and route, timing closure, and verification.

**Advanced:** Licenses that expand capabilities beyond their Basic counterparts. This includes tools for advanced technology nodes (e.g. 28nm or 22nm), tools allowing scaling of design effort for large circuits, tools allowing mixed mode design and simulation, and tools providing enhanced capability for timing and power analysis.

## Responsibilities

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### ASIC Department SME:

- Provide PPD Finance with the spreadsheet listing each license that is planned for the year (see details in the definitions section). This will be provided to finance yearly with preliminary information before the requisitions are entered. Updated spreadsheets should be provided as needed.

- The SME is responsible for attesting which licenses are considered Basic and Advanced each year.
- The SME is responsible for ensuring that the requisition is submitted to the requisition preparer using the correct task code for each category of licenses.

**PPD Finance:**

- Provide an appropriate overhead task code to be used for the requisitions, obligations, and cost of the Basic licenses.
- Confirm that the task code for each ASIC License requisition is on the appropriate B&R according to the information provided by the SME.
- Provide the PPD ASIC Department Head and Deputy with monthly obligation reports to track budget spending and to manage the timing of requisitions

**Revision History**

Version	Date	Notes
v01	August 19, 2022	Original Creation

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August 25, 2022

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Date