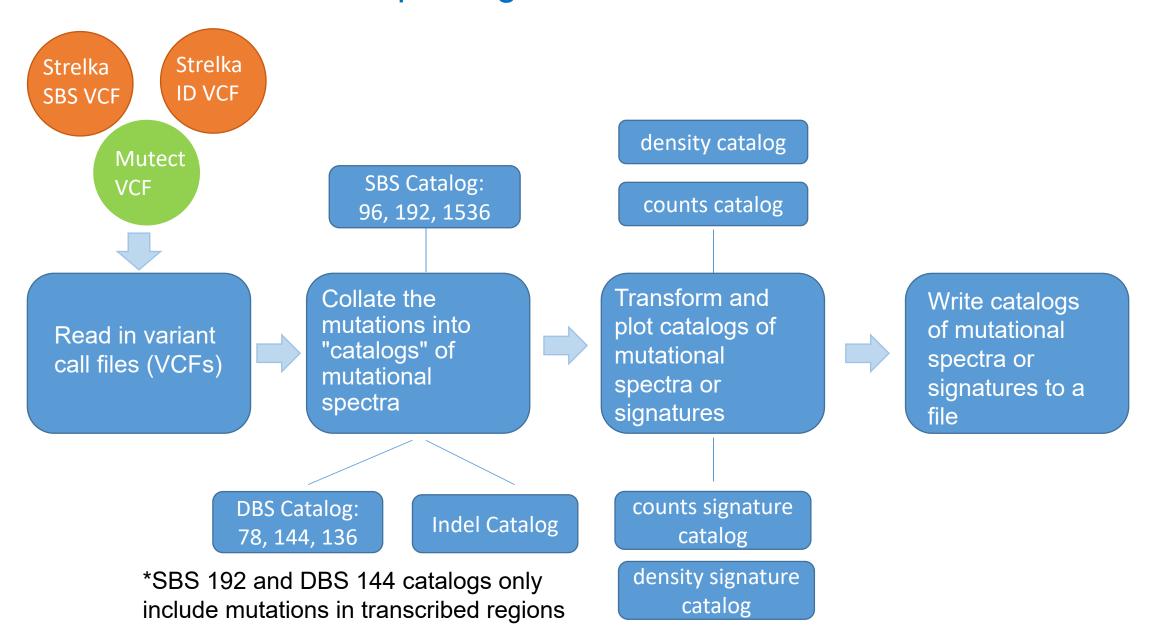
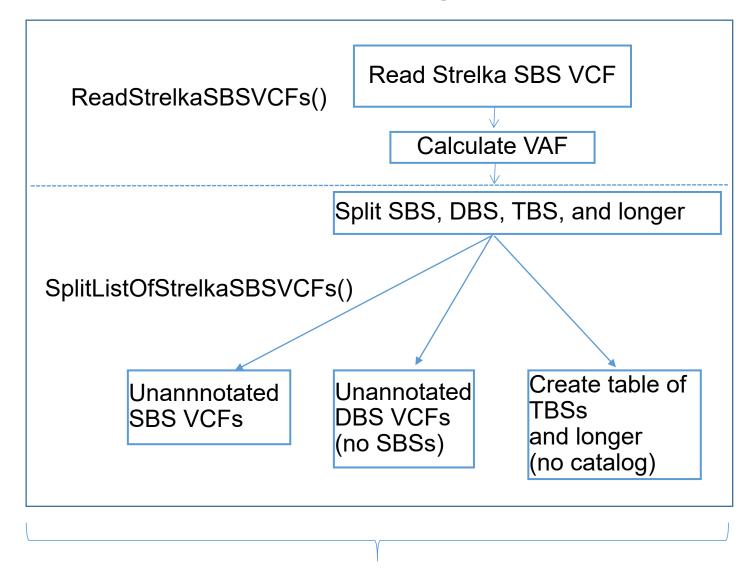
Overview of ICAMS R package functionalities



Strelka VCF processing



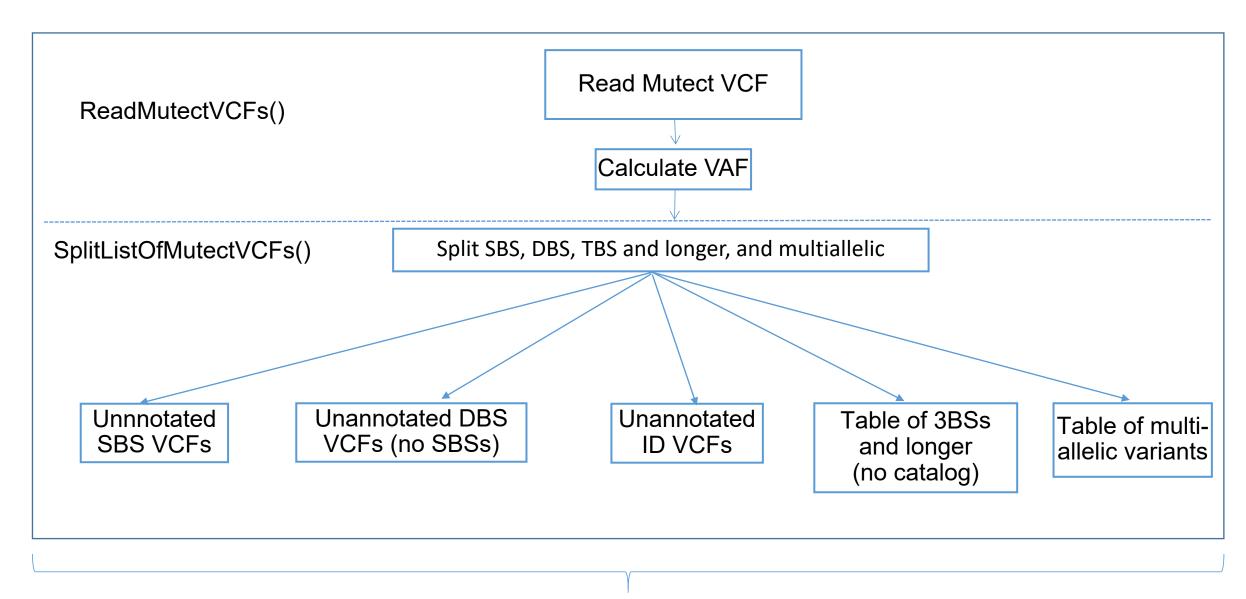
Read Strelka ID VCF Unannotated ID VCFs

ReadStrelkalDVCFs()

ReadAndSplitStrelkaSBSVCFs()

* Functions whose names in red color are exported in ICAMS

Mutect VCF processing

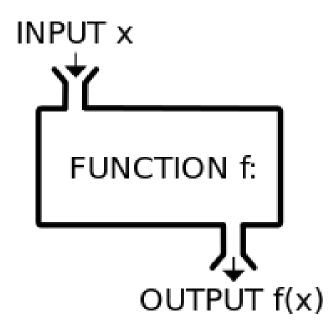


ReadAndSplitMutectVCFs()

^{*} Functions whose names in red color are exported in ICAMS

VCFs to catalogs and beyond Unannotated ID Unannotated DBS VCFs (no SBSs) Unannotated SBS VCFs **VCFs** VCFsToIDCatalogs() VCFsToSBSCatalogs() VCFsToDBSCatalogs() AnnotateSBSVCF() AnnotateDBSVCF() AnnotateIDVCF() Annotated DBS VCFs Annotated (no SBSs) Annotated ID SBS VCFs **VCFs** Filter for Filter for inTranscript inTranscript Unstranded Unstranded Stranded Unstranded Unstranded Stranded ID catalog SBS Catalog SBS catalog SBS catalog DBS catalog DBS catalog DBS catalog (96)(192)(1536)(78)(136)(144)Plot per Plot Plot Plot Plot Plot Plot main class Plot per main class

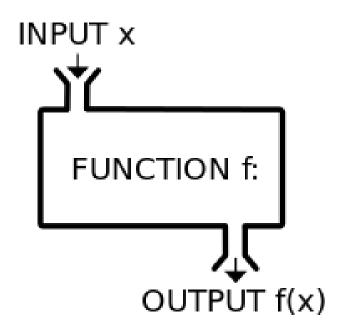
^{*} Functions whose names in red color are exported in ICAMS



Creating catalogs from variant call files (VCF files)

- StrelkaSBSVCFFilesToCatalog()
- StrelkaIDVCFFilesToCatalog()
- MutectVCFFilesToCatalog()

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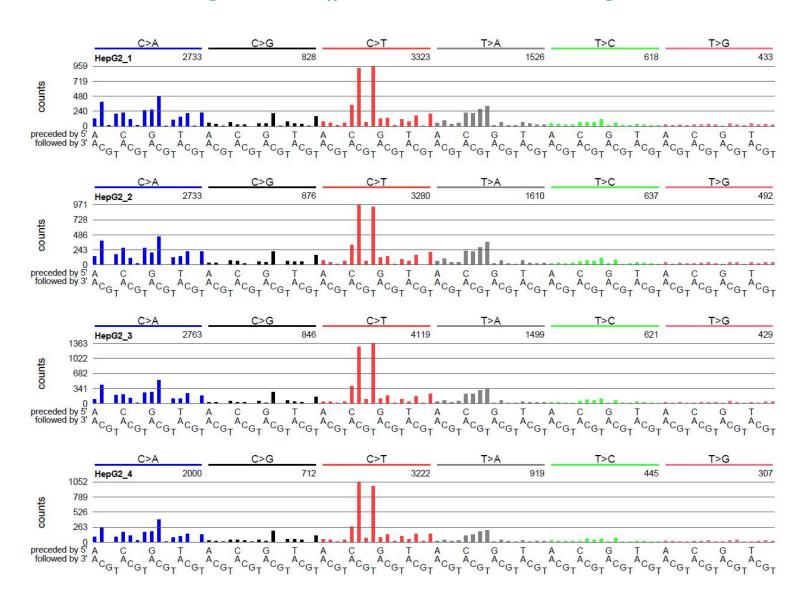


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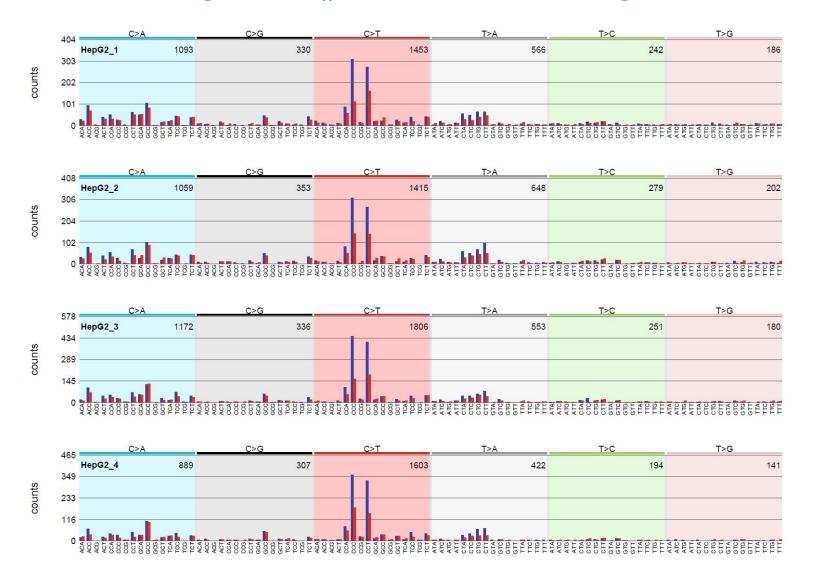
Plotting catalogs

- PlotCatalog()
- PlotCatalogToPdf()

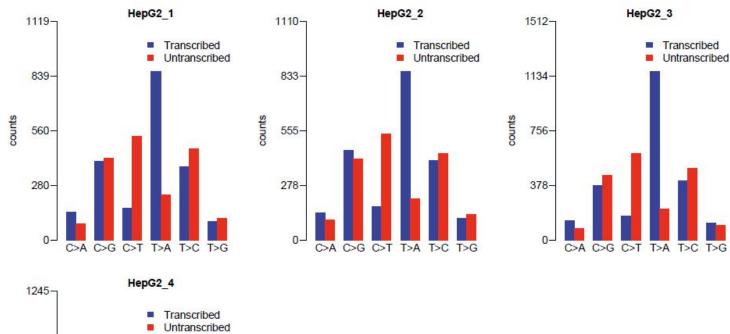
PlotCatalogToPdf(): SBS96 Catalog

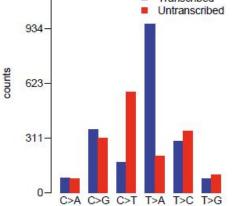


PlotCatalogToPdf(): SBS192 Catalog



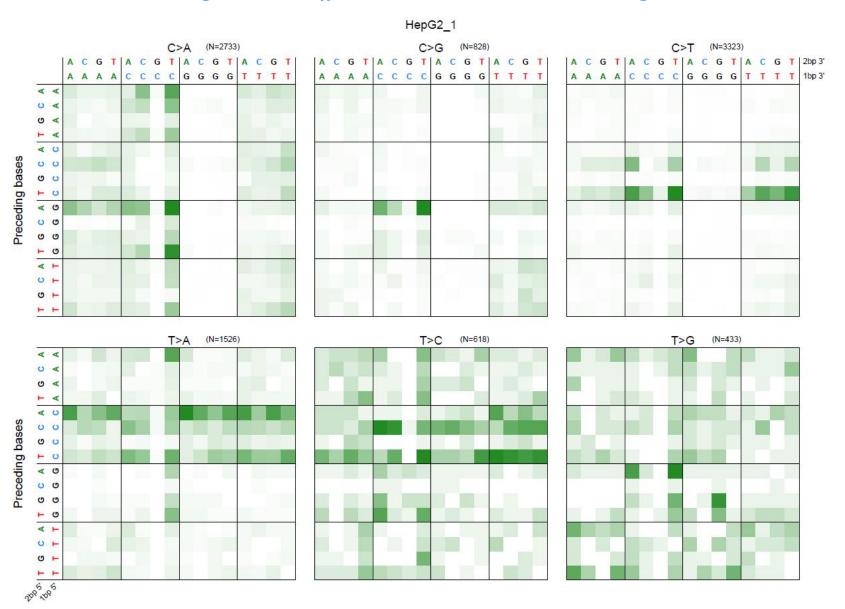
PlotCatalogToPdf(): SBS192 Catalog with argument plot.SBS12 = TRUE



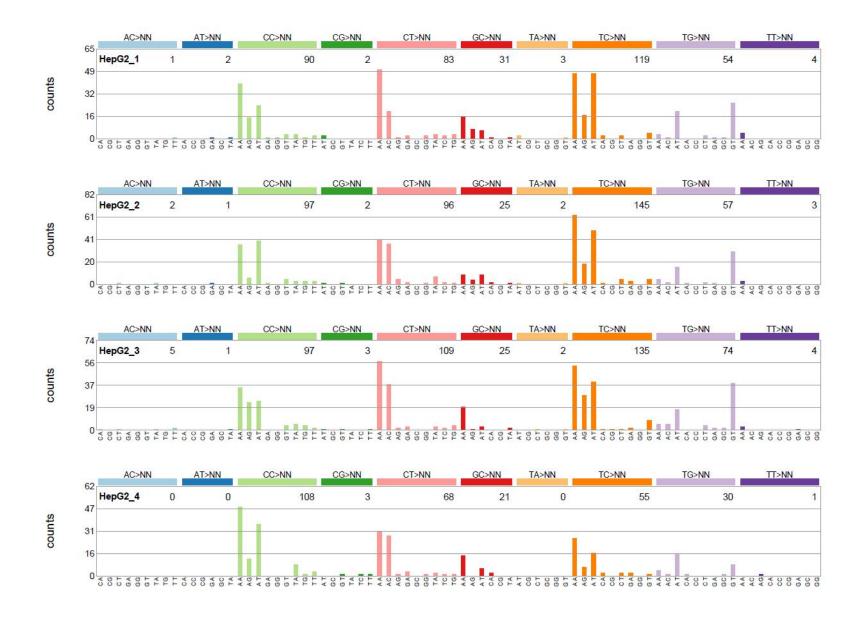


*no.context: no preceding and following base context

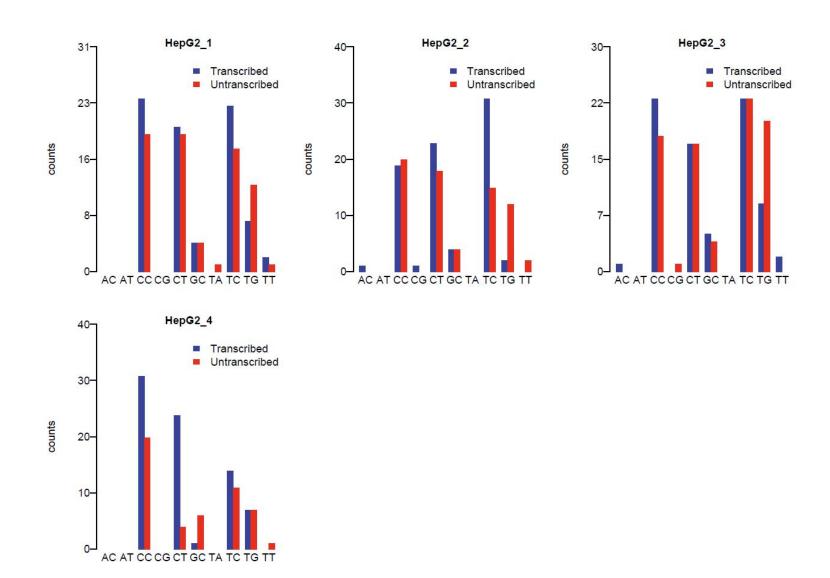
PlotCatalogToPdf(): SBS1536 Catalog



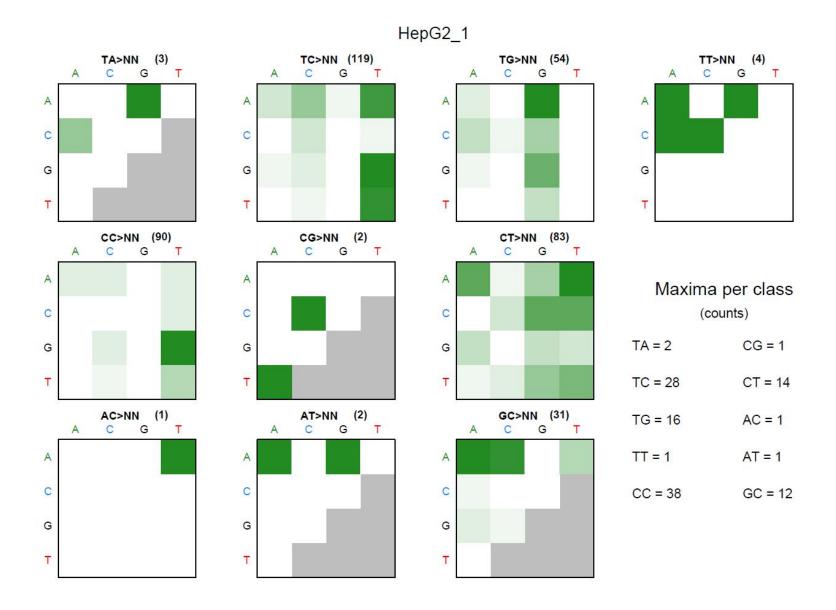
PlotCatalogToPdf(): DBS78 Catalog



PlotCatalogToPdf(): DBS144 Catalog

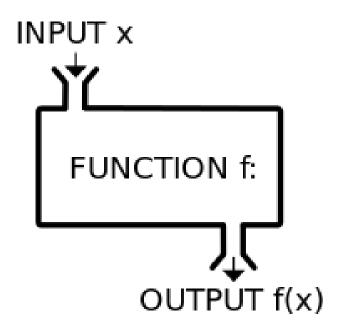


PlotCatalogToPdf(): DBS136 Catalog



PlotCatalogToPdf(): Indel Catalog

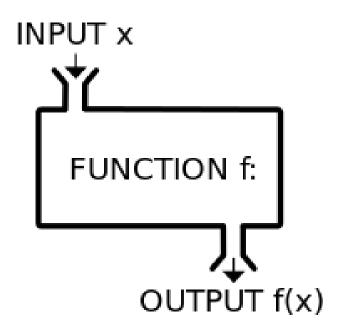




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Creating catalogs and plot them to PDF

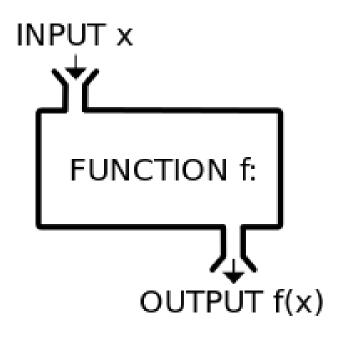
- StrelkaSBSVCFFilesToCatalogAndPlotToPdf()
- StrelkaIDVCFFilesToCatalogAndPlotToPdf()
- MutectVCFFilesToCatalogAndPlotToPdf()



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Annotating in-memory VCFs

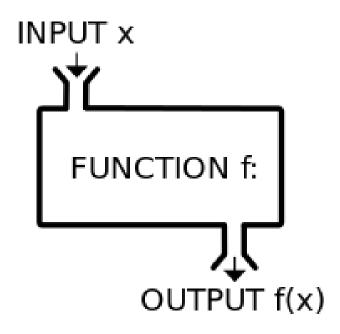
- AnnotateSBSVCF()
- AnnotateDBSVCF()
- AnnotateIDVCF()



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Reading and writing catalogs

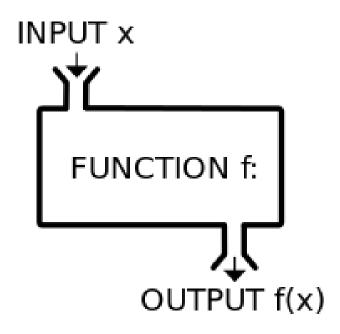
- ReadCatalog()
- WriteCatalog()



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"Collapse" a catalog

- Collapse192CatalogTo96()
- Collapse1536CatalogTo96()
- Collapse144CatalogTo78()



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Utility functions

- TransformCatalog()
- as.catalog()
- revc()