

# List of critical software components (PAF)

Open Data Interface (ODI)  
ESTEC/Contract No. 21964/08/NL/AT

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## Contents

<b>1</b>	<b>Introduction</b>	<b>4</b>
<b>2</b>	<b>Applicable and reference documents</b>	<b>4</b>
<b>3</b>	<b>Terms, definitions and abbreviated terms</b>	<b>4</b>
<b>4</b>	<b>List of critical software components</b>	<b>4</b>
4.1	Core ODI system . . . . .	5
4.2	Dataset specific . . . . .	5
4.3	External systems . . . . .	5

## 1 Introduction

This document lists the critical software components for the ODI system.

## 2 Applicable and reference documents

**ODI/SOW** ODI Statement of Work

**ODI/SSS** ODI Software System Specification

**ODI/TN/DB** Technical Note on the ODI Database

**ODI/TN/SSS** TN on SAAPS/SEDAT/SPENVIS adaption for ODI

**ODI/AG** ODI Administrator Guide

**ODI/UG** ODI User Guide

**E401B** ECSS-E40 Part 1B

**E402B** ECSS-E40 Part 2B

**M40C** ECSS-M-ST-40C Rev. 1

## 3 Terms, definitions and abbreviated terms

**CDF** Common Data Format

**ODI** Open Data interface

**PRBEM** Panel on Radiation Belt Environment Modeling

**SAAPS** Satellite Anomaly Analysis and Prediction System

**SCF** Software Configuration File

**SEDAT** Space Environment Data Analysis Tool

**SOW** Statement of Work for ESTEC/Contract No. 21964/08/NL/AT

**SPENVIS** Space Environment Information System

**SQL** Structured Query Language

## 4 List of critical software components

Here we list all software that are critical to the system.

#### 4.1 Core ODI system

Software	Description	Criticality
MySQL	Database server and implementation language	Mandatory
PHP	Main implementation language. Must be compiled with MySQL support (which most binary packages have).	Mandatory
cdfexport	Program to export CDF's.	For ingesting CDF's to ODI.
hdp	Program to export HDF's.	For ingesting HDF's to ODI.
IDL and IDL Dataminer	Multiple use.	For exporting ODI data into CDF's.

Both cdfexport and hdp are distributed with the ODI system (Linux and Windows binaries).

#### 4.2 Dataset specific

For a few datasets, like archived GOES data from NGDC, dataset specific computations are made that rely on additional software. These programs have been compiled for Linux and Windows and are distributed with the ODI system.

#### 4.3 External systems

Three selected external systems have been modified to access the ODI database. These are SAAPS, SEDAT, and SPENVIS. These systems rely on additional software as listed below. Each system also depend on software libraries. These are distributed with the ODI system.

System	Software	Criticality
SAAPS	Java VM	Mandatory
SEDAT	IDL	Mandatory
	IDL Dataminer	Mandatory
SPENVIS	PHP	Mandatory
	IDL	Optional (for plotting)