

## HA8000V シリーズ/RV3000

## JP1 イベント通知ツール 取扱説明書

マニュアルはよく読み、保管してください。 製品を使用する前に、安全上の指示をよく読み、十分理解してください。 このマニュアルは、いつでも参照できるよう、手近な所に保管してください。

### 重要なお知らせ

- 本書の内容の一部、または全部を無断で転載したり、複写することは固くお断わりします。
- 本書の内容について、改良のため予告なしに変更することがあります。
- 本書の内容については万全を期しておりますが、万一ご不審な点や誤りなど、 お気付きのことがありましたら、お買い求め先へご一報くださいますようお願 いいたします。
- 本書に準じないで本製品を運用した結果については責任を負いません。 なお、保証と責任については、搭載システム装置に添付される保証書裏面の 「保証規定」をお読みください。

### 規制・対策などについて

### □ 輸出規制について

本製品を輸出される場合には、外国為替及び外国貿易法の規制ならびに米国の輸出管理規制など外国の輸出関連法規をご確認のうえ、必要な手続きをお取りください。不明な場合は、弊社担当営業にお問い合わせください。

なお、本製品に付属する周辺機器やソフトウェアも同じ扱いになります。

## 登録商標・商標について

HITACHI、JP1 は、株式会社日立製作所の商標または登録商標です。

Oracle と Java は、Oracle Corporation 及びその子会社、関連会社の米国及びその他の国における登録商標です。

Microsoft®、Windows®、Windows Server®は、米国 Microsoft Corporation の米国およびその他の国における登録商標または商標です。

その他、本マニュアル中の製品名および会社名は、各社の商標または登録商標です。

### 発行

2025 年 2月(第13版)

## 版権について

このマニュアルの内容はすべて著作権により保護されています。このマニュアルの 内容の一部または全部を、無断で転載することは禁じられています。

Copyright © Hitachi Vantara, Ltd. 2017, 2025. All rights reserved.

### 文書来歴

改訂	年月	説明	
4071-1J-100-00	2017年11月	初版	
4071-1J-100-10	2018年6月	第 2 版	
		・本製品の特徴の記載を更新	
		・JP1/Network Node Manager i の設定に関する記載	
		を更新	
		・JP1 イベントの拡張属性の説明を追加	
		・その他誤記修正	
4071-1J-100-20	2018年9月	第3版	
		・RV3000 に対応	
		・オープンソースソフトウェアの変更に伴い、ライセン	
		ス通知を変更	
4071-1J-100-30	2019年1月	第 4 版	
		・実行強化サポートオプション for Java を使用する場	
		合のシステム環境変数の設定手順を追加	
4071-1J-100-40	2019年3月	第 5 版	
		・サポート OS に Windows Server 2019 を追加	
		・前提製品に JP1/Base 12-00 以降、および	

	I	
		JP1/Network Node Manager i 12-00 以降を追加 ・関連製品に JP1/Integrated Management2 12-00 以 降を追加
		・前提環境の準備の(4)に注意事項を追記
4071-1J-100-50	2019年6月	第 6 版 ・技術情報、アップデートプログラムに関する誤記を訂正
4071-1J-100-60	2021年2月	第 7 版 ・RV3000 A2 に対応
4071-1J-100-70	2021 年 8 月	第 8 版 ・JP1 イベントの属性 HCSM_OCCURRENCE_TIME(発生日時)をローカルタイム表示する場合のシステム環境変数の設定手順を追加
4071-1J-100-80	2022 年 4 月	第 9 版 ・サポート OS に Windows Server 2022 を追加 ・Java 11 に対応 ・前提製品に Oracle Java Development Kit(JDK) 11 および実行環境強化サポートオプション for Java 09-87 以降 (Java11)を追加 ・使用する Java 実行環境を明示的に指定するためのシステム環境変数の設定手順を追加。 ・svevcred コマンドのエラーメッセージを追加 ・Java 実行環境変更時の設定見直し手順を追加
4071-1J-100-90	2023年10月	第 10 版 ・前提製品に JP1/Base 13-00 以降、および JP1/Network Node Manager i 13-00 以降を追加 ・関連製品に JP1/Integrated Management3 13-00 以 降を追加
4071-1J-100-A0	2024 年 9 月	第 11 版 ・RV3000 A3 に対応
4071-1J-100-B0	2025年1月	第 12 版 ・社名およびホームページ URL を変更
4071-1J-100-C0	2025 年 2 月	第 13 版 ・サポート OS に Windows Server 2025 を追加 ・「管理対象のセットアップ (HA8000V シリーズ /RV3000 A1,A3 の場合)」の SNMP トラップの送信設定を改訂

## はじめに

このたびは日立ヴァンタラ HA8000V シリーズ/RV3000 をお買い上げいただき、誠にありがとうございます。このマニュアルは、JP1イベント通知ツールの設定方法や取り扱いの注意など、使用するために必要な事柄について記載しています。

### お問い合わせ先

### □ 技術情報、アップデートプログラムについて

HA8000V シリーズ/RV3000 ホームページで、技術情報、ドライバやユーティリティ、BIOS、ファームウェアなどのアップデートプログラムを提供しております。

■ ホームページアドレス

HA8000V シリーズ : https://www.hitachi.co.jp/products/it/ha8000v/start-here/

RV3000 : https://www.hitachi.co.jp/products/it/rv3000/start-here/

各アップデートプログラムはお客様責任にて実施していただきますが、システム装置を安全にご使用 していただくためにも、定期的にホームページにアクセスして、最新のドライバやユーティリティ、BIOS、 ファームウェアへ更新していただくことをお勧めいたします。

障害等の保守作業で部品を交換した場合、交換した部品の BIOS、ファームウェアは原則として最新のものが適用されます。また保守作業時、交換していない部品の BIOS、ファームウェアも最新のものへ更新する場合があります。

### □ お問い合わせ先

コンピュータ製品に関するお問い合わせ先は、システム装置の重要事項および読替ガイド/ユーザーズガイドをご確認ください。

## 目次

重要なお知らせ	2
規制・対策などについて	2
登録商標・商標について	3
発行	3
版権について	3
文書来歴	3
はじめに	5
お問い合わせ先	
目次	6
お使いになる前に	
ご確認いただくこと	8
本製品の概要	9
特徵	9
サポート機種	9
サポート OS	9
前提製品	10
関連製品	10
JP1 イベント通知ツールのインストールとセットアップ	11
前提環境の準備	
管理対象のセットアップ(HA8000V シリーズ/RV3000 A1,A3 の場合)	
管理対象のセットアップ (RV3000 A2 の場合)	
システム環境変数の設定	
JP1 イベント通知ツールのインストール/セットアップ	16
JP1/Integrated Management の設定(オプション)	17
JP1/Network Node Manager i の設定	18
JP1 イベント通知ツールのアップデート	21
JP1 イベント通知ツールのアップデート	21
JP1 イベント通知ツールのアンインストール	22
管理対象の設定の解除	
JP1/Network Node Manager i の設定の解除	
JP1 イベント通知ツールのアンインストール	
前提製品・関連製品のアンインストール	
システム環境変数の削除	
svevcred コマンド	24
認証情報の登録	
認証情報の自除	
認証情報の一覧表示	

エラーメッセージ	25
<b>付録 A JP1 イベント通知ツールが発行する JP1 イベントの属性</b> 基本属性 拡張属性	26
<b>付録 B JP1 イベント通知ツールが通知するアラートメッセージ</b> アラートメッセージー覧	
付録 C Java 実行環境変更時の設定見直し手順 管理サーバの Java 実行環境をアップデートした場合 管理サーバに複数の Java 実行環境をインストールする場合	29
<b>付録 D オープンソースソフトウェアのライセンス通知</b> D.1 ライセンス通知	

1

## お使いになる前に

この章では、JP1イベント通知ツールのセットアップ前に知っておいていただきたい内容について説明します。

## ご確認いただくこと

ご使用になる前に次のことをご確認ください。万一不具合がありましたらお手数ですが、お 買い求め先にご連絡ください。

- 形式がご注文通りのものですか。
- 輸送中に破損したと見られる個所はありませんか。
- 添付品一覧表記載の付属品は全てそろっていますか。 また、別紙で追加情報が同梱されているときは、内容を確認してください。

## 2

## 本製品の概要

この章では、本製品の概要について説明します。

### 特徴

本製品は、JP1/Network Node Manager i が HA8000V シリーズ/RV3000(以降、管理対象)の SNMP トラップを受信したときのアクションとして呼び出され、管理対象の SNMP トラップを JP1 イベントに変換して送信するアプリケーションです。管理対象の SNMP トラップを、独自の変換ルールと管理対象の SNMP トラップの MIB 定義ファイル相当の情報を使用して JP1 イベントに変換します。

### サポート機種

### 管理対象

JP1 イベント通知ツールは HA8000V シリーズ/RV3000 全モデルを対象に動作します。

### 管理サーバおよび管理クライアント

JP1 イベント通知ツールの前提製品および関連製品がサポートする機種で動作します。
JP1 イベント通知ツールは IPv4 および IPv6 をサポートします。

### サポート OS

JP1 イベント通知ツールは、以下の OS で動作します。 前提製品および関連製品のサポート OS についても合わせて確認してください。

Windows Server 2025 Standard
Windows Server 2025 Datacenter
Windows Server 2022 Standard
Windows Server 2022 Datacenter
Windows Server 2019 Standard
Windows Server 2019 Datacenter
Windows Server 2016 Standard
Windows Server 2016 Datacenter
Windows Server 2016 Datacenter
Windows Server 2012 R2 Standard

## 前提製品

JP1 イベント通知ツールの動作には、以下の3つの前提製品が必要です。

- (1) 次のいずれかの JP1/Base
  - •P-2A2C-6LBL JP1/Base 11-00 以降
  - •P-2A2C-6LCL JP1/Base 12-00 以降
- ・JP1/Base 13-00 以降(後述の「P-2A2C-8EDL JP1/Integrated Management3 Manager 13-00 以降」に統合)
- (2) 次のいずれかの JP1/Network Node Manager i
  - •P-2942-82BL JP1/Network Node Manager i 11-00 以降
  - •P-2942-82CL JP1/Network Node Manager i 12-00 以降
  - •P-2942-82DL JP1/Network Node Manager i 13-00 以降
- (3) 次のいずれかの Java 実行環境

Java 実行環境	JP1 イベント通知ツール	
	01-11 以前	01-12 以降
Oracle Java Runtime Environment(JRE) 8 (64bit)	0	0
Oracle Java Development Kit(JDK) 11 (64bit)	×	0
P-293Z-7J94 実行環境強化サポートオプション	0	0
for Java 09-70 以降(Java8)		
P-293Z-7JX4 実行環境強化サポートオプション	×	0
for Java 09-87 以降(Java11)		

〇:サポート、×: 非サポート

## 関連製品

JP1 イベント通知ツールには、以下の関連製品があります。

- (1) 次のいずれかの JP1/ Integrated Management Manager(※)
  - •P-2A2C-8EBL JP1/Integrated Management Manager 11-00 以降
  - •P-2A2C-8ECL JP1/Integrated Management2 Manager 12-00 以降
  - •P-2A2C-8EDL JP1/Integrated Management3 Manager 13-00 以降

通知された JP1 イベントを参照するために使用します

※以下、本マニュアルでは、本関連製品を「JP1/Integrated Management - Manager」と表記しています。

## 3

# JP1 イベント通知ツールのインストールとセットアップ

この章では、JP1 イベント通知ツールのインストールとセットアップ 方法について説明します。

## 前提環境の準備

以下の手順で、JP1 イベント通知ツールの動作の前提となる環境の準備を行ってください。 前提製品および関連製品のインストールとセットアップについては、それぞれのマニュアル を参照してください。

- (1) 管理サーバに JP1/Base をインストールおよびセットアップしてください。
- (2) 管理サーバに JP1/Network Node Manager i をインストールおよびセットアップしてください。
- (3) 「前提製品」を参照し、管理サーバに Java 実行環境をインストールしてください。
- (4) [オプション] 管理サーバに JP1/Integrated Management Manager をインストールおよびセットアップしてください。
- (5) [オプション] 管理クライアントに JP1/Integrated Management View をインストール およびセットアップしてください。

## 管理対象のセットアップ (HA8000V シリーズ/RV3000 A1,A3の場合)

管理対象の機種が HA8000V シリーズ/RV3000 A1,A3 の場合は以下の手順で、セットアップを行ってください。なお、SNMP トラップの設定については、iLO Web インターフェースで行います。iLO Web インターフェースの操作方法については、HA8000V シリーズ/RV3000 A1 は「*iLO ユーザーガイド*」を参照してください。RV3000 A3 は「RV3000 A3 ユーザーズガイド」を参照してください。

(1) iLO Web インターフェースを使用して、JP1 イベント通知ツール用のユーザーを登録してください。

設定可能なログイン名およびパスワードについては、「HA8000V シリーズ 重要事項および読替ガイド」、「RV3000 重要事項および読替ガイド」および「RV3000 A3 ユーザーズガイド」を参照してください。

なお、JP1 イベント通知ツール用のユーザーのパスワードには、「"」「%」「!」「¥」を使用できません。

ユーザーの権限(User Privileges)には、少なくとも以下を付与してください。

•Login

(2) iLO Web インターフェースを使用して、SNMPトラップの送信設定を行ってください。

設定項目	設定内容
トラップソース識別子	iLO ホスト名
SNMPv1 リクエスト	SNMPv1 トラップを使用する場合、有効
SNMPv1 トラップ	SNMPv1 トラップを使用する場合、有効
SNMPv3 リクエスト	SNMPv3トラップを使用する場合、有効
SNMPv3 トラップ	SNMPv3トラップを使用する場合、有効
コールドスタートトラップブ	任意
ロードキャスト	
読み取りコミュニティ1~3	JP1/Network Node Manager i の設定と合わせてくださ
	L)
ステータス	有効
SNMP ポート	JP1/Network Node Manager i の設定と合わせてくださ
	U)
SNMP アラートの送信先	管理サーバの IP アドレスを指定してください
	JP1/Network Node Manager i の設定と合わせてくださ
	U
SNMPv3 ユーザー	SNMPv3トラップを使用する場合、
	JP1/Network Node Manager i の設定と合わせてくださ
	()

## 管 理 対 象 の セットアップ (RV3000 A2 の場合)

管理対象の機種が RV3000 A2 の場合は以下の手順で、セットアップを行ってください。各操作は、RMC CLI で行います。RMC CLI の操作方法については「RV3000 A2 ユーザーズガイド」を参照してください。

(1) RMC CLI に administrator ユーザーでログインして、次のコマンドで JP1 イベント通知ツール用のユーザーを登録してください。

なお、JP1 イベント通知ツール用のユーザーのパスワードには、「"」「%」「!」「¥」を使用できません。

ユーザーのロールには、Administrator, Operator, ReadOnly のどれかを付与してください。

add user name=〈ユーザー名〉role=〈ユーザーのロール〉

#### 設定例:

add user name=userA role= Administrator

(2) 次のコマンドを入力します。

set snmp forward\_address=〈管理サーバの IP アドレス〉

### 設定例:

set snmp forward\_address=192.168.0.1

(3) 次のコマンドを入力して RMC を再起動します。

reboot rmc

### 注意事項

・ 送信されるトラップは SNMP v1 になります。SNMP v3 でのトラップ送信はできません。

### システム環境変数の設定

JP1 イベント通知ツールが使用するシステム環境変数を設定してください。

システム環境変数を設定・削除した場合は、変更内容を反映させるために、管理サーバを 再起動してください。

変数名	概要
SVEVTOOL_JAVA_OPTS	日立 JavaVM 起動オプションを設定します。
SVEVTOOL_JAVA_PATH	Java 実行環境のインストール先のjava.exe が格納され
	ているフォルダのパスを設定します。
SVEVTOOL_OCCURRENCE_	JP1 イベントの発生日時をローカルタイムで表示したい
TIME	場合に設定します。

### ☐ SVEVTOOL\_JAVA\_OPTS

実行環境強化サポートオプション for Java を使用する場合に JavaVM の起動オプションを設定します。Oracle Java を使用する場合には設定の必要はありません。

#### 変数値:

実行環境強化サポートオプション for Java の取扱説明書(使用の手引き)を参照して、必要な日立 JavaVM 起動オプションを設定してください。

### 備考:

SVEVTOOL\_JAVA\_OPTS システム環境変数は JP1 イベント通知ツール 01-04 以降でサポートします。

### ☐ SVEVTOOL JAVA PATH

JP1 イベント通知ツールが使用する Java のパスを指定します。 SVEVTOOL\_JAVA\_PATH システム環境変数が未定義の場合、JP1 イベント通知ツールは PATH システム環境変数に設定されている Java を使用します。

PATHとSVEVTOOL\_JAVA\_PATHの両方が定義されている場合、JP1 イベント通知ツールは SVEVTOOL\_JAVA\_PATH システム環境変数の設定値を優先して使用します。

システム環境変数の設定が正しく設定されていることの確認には svevcred -list コマンドを実行し、認証情報一覧が表示されることを確認してください。 svevcred コマンドの使用方法については「svevcred コマンド」を参照してください。

#### 変数値:

Java 実行環境のインストール先の java.exe が格納されているフォルダのパスを指定してください。

設定例1: Oracle Java Runtime Environment(JRE) 8 (1.8.0u261 )の場合

C:\Program Files\Java\jdk1.8.0\_261\Poin

設定例2: Oracle Java Development Kit(JDK) 11 (11.0.12)の場合

C:\Program Files\Java\jdk-11.0.12\bin

設定例3: 実行環境強化サポートオプション for Java の場合

C:\Program Files\Hitachi\Cosminexus\jdk\bin

※ 設定例はインストール先がデフォルトの場合の設定です。インストール先をデフォルトから変更した場合はインストール先に合わせて設定してください。

#### 注意事項:

- ・管理サーバの Java 実行環境が次の条件のどちらかに該当する場合には SVEVTOOL JAVA PATH システム環境変数を必ず設定してください。
  - (a) Java 実行環境に Oracle Java Development Kit(JDK) 11 または実行環境強化サポートオプション for Java 09-87 以降 (Java11)を使用する場合
  - (b) 複数の Java がインストールされている環境で JP1 イベント通知ツールが使用する Java を明示的に指定する場合
- Java 実行環境が Oracle Java の場合、"C:\(\frac{4}{2}\)Program Files\(\frac{4}{2}\)Common
   Files\(\frac{4}{2}\)Oracle\(\frac{4}{2}\)JP1 イベント通知ツールが正常に動作できなくなることがあります。

#### 備考:

SVEVTOOL\_JAVA\_PATH システム環境変数は JP1 イベント通知ツール 01-12 以降でサポートします。JP1 イベント通知ツール 01-11 以前では PATH システム環境変数に設定している Java 実行環境を使用します。

### ☐ SVEVTOOL\_OCCURRENCE\_TIME

デフォルトでは、JP1 イベントの属性 HCSM\_OCCURRENCE\_TIME(発生日時)は、タイムゾーンが UTC で表示されます。属性 HCSM\_OCCURRENCE\_TIME をローカルタイムで表示したい場合は、システム環境変数に以下の変数を追加してください。

#### 変数値:

任意の値を設定します。

設定が有効かどうかは変数が定義されているかどうかで判別されます。

#### 備考:

属性 HCSM\_OCCURRENCE\_TIME のローカルタイムでの表示は、JP1 イベント通知ツール 01-10 以降で使用できます。

# JP1 イベント通知ツールのインストール/セットアップ

以下の手順で、管理サーバに JP1 イベント通知ツール本体のインストールし、セットアップを行ってください。管理対象の装置を追加する場合は、(3)を実施してください。

- (1) JP1 イベント通知ツールの ZIP ファイルを任意のディレクトリに展開してください。
- (2) <(1)で展開したディレクトリ>にアクセス権を設定してください。
  - (a) SYSTEM アカウントには、「フルコントロール」権限を与えてください。
  - (b) <(1)で展開したディレクトリ>以下にはパスワードが(難読化された状態で)記録されますので、パスワードを参照されたくないユーザーへアクセス権を与えないでください。
- (3) コマンドプロンプトを開き <(1)で展開したディレクトリ>¥svevcred コマンドを実行して、「管理対象のセットアップ(HA8000 シリーズ/RV3000 A1,A3 の場合)」-(1)または「管理対象のセットアップ(RV3000 A2 の場合)」-(1)で作成したアカウントの認証情報を登録してください。

svevcred コマンドの使用方法については、「svevcred コマンド」を参照してください。

## JP1/Integrated Management の 設定(オプション)

以下の手順で、 JP1 イベント通知ツールのイベント拡張属性定義ファイルを、JP1/Integrated Management の環境にコピーしてください。

(1) JP1 イベント通知ツールのインストールディレクトリにあるイベント拡張属性定義ファイルを、JP1/Integrated Management の環境にコピーしてください。

### コピー元のファイル:

<JP1 イベント通知ツールのインストールディレクトリ>¥IM にあります。

日本語環境では、hitachi\_hcsm\_attr\_ja.conf を使用してください。

### コピー先:

JP1/Integrated Management - Manager のマニュアルを参照してください。

## JP1/Network Node Manager i の設定

以下の手順で、JP1/Network Node Manager i の設定を行ってください(監視対象を追加する場合も、以下手順を参照して設定を見直してください)。詳細については、JP1/Network Node Manager i のマニュアルを参照してください。

- (1) 管理対象を、JP1/Network Node Manager i の監視対象にしてください。
- (2) SNMP トラップを受信したときに、〈JP1 イベント通知ツールのインストールディレクトリ>\#svevtool.bat が呼び出されるように設定してください。

設定項目	設定内容	
SNMP のオブジェクト ID の	·管理対象が HA8000 シリーズ/RV3000 A1,A3 のみ	
指定	の場合	
	".1.3.6.1.4.1.232.*"を指定してください	
	・管理対象が RV3000 A2 のみの場合	
	".1.3.6.1.4.1.59.*" および、	
	".1.3.6.1.4.1.3183.* を指定してください	
	・管理対象が HA8000 シリーズ/RV3000 A1,A3 と	
	RV3000 A2 が混在する場合	
	".1.3.6.1.4.1.232.*"、	
	".1.3.6.1.4.1.59.*" および <b>、</b>	
	".1.3.6.1.4.1.3183.*" を指定してください	
コマンドの引数	引数として "\$*" を追加してください	

### 設定例:

JP1/Network Node Manager i のバージョンによってメニューや項目が変わる場合があります。この例では、JP1 イベント通知ツールのインストールディレクトリをC:\(\pm\)svevtool としています。

- (a)「設定」ー「インシデント」ー「SNMPトラップの設定」から設定を新規作成
- (b)「アクション」タブで、「ライフサイクルの移行アクション」を登録。
  - ・「ライフサイクル状態」は「登録済み」
  - ・「コマンドのタイプ」は「ScriptOrExecutable」
  - •「コマンド」に「"C:\svevtool\svevtool.bat" \\$\*」

#### 注意事項

- ・ 以下のいずれかの環境に JP1 イベント通知ツールをインストール・セットアップした場合、管理対象から JP1/Network Node Manager i への 1 件の SNMPトラップを契機に 2 件の JP1 イベント(※1)が登録されることがあります。
  - (1)JP1/Integrated Management Event Gateway for Network Node Manager i(以下、JP1/IM EG for NNMi)を使用している。

(2)JP1/Network Node Manager i の「ライフサイクルの移行アクション」に JP1 イベント 通知ツール以外の JP1 イベントを発行するアクションが登録されている。 (JP1/Base の jevsend コマンドの登録や JP1/Network Node Manager i の IM 連携簡易化ツールの登録など)

(※1)SNMP トラップの JP1 イベントと JP1 イベント通知ツールが通知する JP1 イベント

通知される JP1 イベントを 1 件にする必要がある場合、以下の方法で対処してください。詳細な手順はそれぞれマニュアルを参照してください。

#### (1)の場合

JP1/IM-EG for NNMi のフィルターの設定で、除外条件に以下の条件を設定してください。

- (a)ソースノードが管理対象の iLO/RMC の IP アドレスかつ
- (b)発生元が SNMP トラップ

#### (2)の場合

JP1/Network Node Manager i の「ライフサイクルの移行アクション」の設定で、JP1 イベント通知ツールの管理対象の iLO/RMC の IP アドレスから送信される SNMPトラップを契機に実行されるアクションから、JP1 イベント通知ツール以外の JP1 イベントを発行するアクションを削除してください。

- ・ 本書記載のオブジェクト ID の範囲(例 ".1.3.6.1.4.1.232.\*")と重複するオブジェクト ID の 範囲に対して JP1 イベント通知ツール以外のアクションを定義したい場合は、次 に述べる JP1/Network Node Manager i の仕様に従って設定をする必要があります。 以下は、重複するオブジェクト ID が".1.3.6.1.4.1.232.\*"を例として説明します。
  - (a) 最も長い一致が優先される

SNMP トラップの設定に".1.3.6.1.4.1.232.\*"より長い定義(".1.3.6.1.4.1.232.0.\*"や ".1.3.6.1.4.1.232.0.1006"など)が設定されていた場合、".1.3.6.1.4.1.232.\*"の範囲のうち、長い定義に合致するオブジェクト ID の範囲は無視され、無視された範囲の ".1.3.6.1.4.1.232.\*"のアクションは実行されません。

例えば、".1.3.6.1.4.1.232.\*"に対するアクション X と、それより長い定義".1.3.6.1.4.1.23.0.\*"に対するアクション Y があった場合、アクション Y の定義は常に有効ですが、アクション X の範囲のうち、".1.3.6.1.4.1.232.0.\*"が無視されます。なお、それ以外のアクション X の範囲(".1.3.6.1.4.1.232.1.\*"、".1.3.6.1.4.1.232.2.\*"など)は有効です。

(b) 同一のオブジェクト ID に対して異なるアクションを定義する場合は、一つのオブジェクト ID の定義に対して二つのアクションを併記する必要があります。

### 設定例

### (例1) 次の二つのアクションを共存させたい場合

.1.3.6.1.4.1.232.\* \[ \( \tilde{\capacita} \) \( \tild

(JP1 イベント通知ツール)

.1.3.6.1.4.1.232.0.\* xyz (お客様が設定したいアクション)

オブジェクト ID	ライフサイクルの移行アクションのコマンド
.1.3.6.1.4.1.232.*	"C:\forall svevtool\forall svevtool.bat" \forall \*
.1.3.6.1.4.1.232.0.*	xyz "C:¥svevtool¥svevtool.bat" \$*

### (例2)次の二つのアクションを共存させたい場合

.1.3.6.1.4.1.232.\* \[ \( \( \sigma \) \] C:\( \symbol{\text{svevtool}\( \symbol{\text{svevtool}}\) \]

(JP1 イベント通知ツール)

.1.3.6.1.4.1.232.0.1006 xyz (お客様が設定したいアクション)

オブジェクト ID	ライフサイクルの移行アクションのコマンド
.1.3.6.1.4.1.232.*	"C:\svevtool\svevtool.bat" \\$*
.1.3.6.1.4.1.232.0.1006	xyz
(※)	"C:\svevtool\svevtool.bat" \\$*

※詳細なオブジェクト ID に関しては、別紙「JP1 イベント通知ツール アラート一覧」 を参照ください。

JP1 イベント通知ツールを使用する場合は、JP1/Network Node Manager i で管理対象の MIB ファイルをロードしないでください。

## 4

## JP1 イベント通知ツールのアップ デート

この章では、JP1 イベント通知ツールのアップデート方法について説明します。

## JP1 イベント通知ツールのアップ デート

以下の手順で、管理サーバの JP1 イベント通知ツール本体のアップデートを行ってください。

- (1)以下のファイルとディレクトリを任意のディレクトリにコピーして退避してください。
  - 〈JP1 イベント通知ツールのインストール先〉¥credntial.ini〈JP1 イベント通知ツールのインストール先〉¥log ディレクトリ
- (2) JP1 イベント通知ツールのインストール先のファイルとディレクトリをすべて削除してくだ さい。
- (3) JP1 イベント通知ツールの ZIP ファイルを任意のディレクトリに展開し、内容を JP1 イベント通知ツールのインストール先にコピーしてください
- (4) (1)で退避したファイルを JP1 イベント通知ツールのインストール先にコピーしてください。
- (5) JP1 イベント通知ツールのインストール先のディレクトリ下のアクセス権の設定をしてください。詳細は「JP1 イベント通知ツールのインストール/セットアップ」を参照してください。
- (6) JP1 イベント通知ツールのイベント拡張属性定義ファイルを、JP1/Integrated Management の環境にコピーしてください。詳細は「JP1/Integrated Management の設定(オプション)」を参照してください。
- (7) svevced -list を実行して認証情報の一覧が表示されることを確認してください。エラーが表示される場合は「svevcred コマンド」エラーメッセージの対処方法を確認してください。svevcred コマンドの使用方法については、「svevcred コマンド」を参照してください。
- (8) 管理対象の装置を追加する場合は、svevcred コマンドを実行してください。svevcred コマンドの使用方法については、「svevcred コマンド」を参照してください。

## 5

## JP1 イベント通知ツールのアンイ ンストール

この章では、JP1 イベント通知ツールのアンインストール方法について説明します。

### 管理対象の設定の解除

以下の手順で、管理対象の JP1 イベント通知ツールに関する設定を解除してください。なお、 SNMPトラップの設定については、HA8000V シリーズ/RV3000 A1,A3 の場合は iLO Web インターフェース、RV3000 A2 の場合は RMC CLI で行います。iLO Web インターフェースの操作 方法については、HA8000V シリーズ/RV3000 A1 は「*iLO ユーザーガイド*」を参照してください。 RV3000 A3 は「RV3000 A3 ユーザーズガイド」を参照してください。

(1) SNMPトラップの送信設定を解除してください。

HA8000V シリーズ/RV3000 A1,A3 の場合は iLO Web インターフェースを使用してください。

RV3000 A2 の場合は RMC CLI から次のコマンドを入力してください。 remove snmp forward\_address=<管理サーバの IP アドレス>

### 使用例:

remove snmp forward\_address=192.168.0.1

(2) JP1 イベント通知ツール用のユーザーを削除してください。 HA8000V シリーズ/RV3000 A1,A3 の場合は iLO Web インターフェースを使用してください。

RV3000 A2 の場合は RMC Web GUI を使用してください。

# JP1/Network Node Manager i の設定の解除

以下の手順で、JP1/Network Node Manager i の設定の解除を行ってください。詳細については、JP1/Network Node Manager i のマニュアルを参照してください。

- (1) SNMP トラップを受信したときの JP1 イベント通知ツールを呼び出すアクションを削除 してください。
- (2) JP1/Network Node Manager i の監視対象から、管理対象を削除してください。

## JP1 イベント通知ツールのアンイ ンストール

JP1 イベント通知ツールのインストールディレクトリを削除してください。

# 前提製品・関連製品のアンインストール

必要に応じて、前提製品・関連製品のアンインストールを行ってください。

## システム環境変数の削除

次のシステム環境変数を設定していた場合、削除してください。変更内容を反映させるために、管理サーバを再起動してください。

- •SVEVTOOL\_JAVA\_OPTS
- SVEVTOOL\_JAVA\_PATH
- SVEVTOOL\_OCCURRENCE\_TIME

## 6

## svevcred コマンド

この章では、JP1 イベント通知ツールが管理対象から情報を取得する際に使用する認証情報を登録・削除・一覧表示する svevcred コマンドについて説明します。

### 認証情報の登録

認証情報を登録します。

svevcred -add {-ip [IP アドレス]} {-port [ポート番号]} -user "[ユーザー名]" -password "[パスワード]"

IP アドレスは、管理対象の iLO/RMC のアドレスを指定してください。

ユーザー名は、「管理対象のセットアップ(HA8000V シリーズ/RV3000 A1,A3 の場合)」-(1) または「管理対象のセットアップ(RV3000 A2 の場合)」-(1)で作成したユーザーを指定してください。

[ユーザー名]および[パスワード]の文字列全体をそれぞれ""で囲ってください。IP アドレスを指定しない場合は、すべての管理対象に対しての設定になります。IP アドレスを指定した場合は、その IP アドレスの管理対象に対しての設定になります。すべての管理対象に対しての設定が両方設定されている場合は、特定の IP アドレスの管理対象に対しての設定を用います。なお、特定の IP アドレスの管理対象に対しての設定を用います。なお、特定の IP アドレスの管理対象に対しての設定を用いて正常に通信できなかった場合でも、すべての管理対象に対しての設定は参照しません。

1 つの IP アドレスには、1 つしか認証情報を登録できません。同じ IP で再度登録された場合は前の設定を上書きします。

ポート番号は省略可能です。その場合、デフォルト 443 が使用されます。

## 認証情報の削除

認証情報を削除します。

svevcred -del {-ip [IP アドレス]}

IP アドレスを指定しない場合は、デフォルトの設定を削除します。

## 認証情報の一覧表示

認証情報の一覧を表示します。

svevcred -list

IP アドレスとポート番号とユーザー名の一覧が表示されます。

## エラーメッセージ

svevcred コマンドは実行時に Java 実行環境のチェックを行います。 Java 実行環境チェック 時に出力するエラーメッセージの一覧を示します。

エラーメッセージ	対処方法
Java が見つかりません。	「システム環境変数の設定」を参
取扱説明書を参照して、SVEVTOOL_JAVA_PATH	照してシステム環境変数
環境変数を設定してください。	SVEVTOOL_JAVA_PATHの設定
	を確認してください。
Java のパス指定が正しくありません。	「システム環境変数の設定」を参照してシステム環境変数
取扱説明書を参照して、SVEVTOOL_JAVA_PATH	SVEVTOOL_JAVA_PATHの設定
環境変数を正しく設定してください。	を確認してください。



## 付録 A JP1 イベント通知ツールが 発行する JP1 イベントの属性

この章では、JP1 イベント通知ツールが発行する JP1 イベントの属性を説明します。

JP1 イベントの属性には、基本属性と拡張属性があります。

- ・基本属性: すべての JP1 イベントが持っている属性
- ・拡張属性: JP1 イベント通知ツールが独自に割り当てる属性

### 基本属性

すべての JP1 イベントが持っている属性です。属性の詳細については、JP1/Base のマニュアルを参照してください。

JP1 イベント通知ツールでは、次の通知情報を含みます。

(1) イベント ID: 重大度に応じて次の ID を示します。

0x00012410:情報 0x00012411:警告 0x00012412:エラー

(2) メッセージ:アラートの内容を示します。

## 拡張属性

JP1 イベント通知ツールが独自に割り当てる属性です。JP1 イベントの拡張属性として通知される内容を次の表に示します。

属性名	通知情報	内容
SEVERITY	重大度	JP1 イベント通知ツールのアラー
		トレベルに対応した、次のどれか
		を示します。
		•情報
		•警告
		・エラー
PRODUCT_NAME	プロダクト名	/HITACHI/HCSM
ROOT_OBJECT_TYPE	登録名タイプ	CHASSIS
OBJECT_TYPE	オブジェクトタイプ	HARDWARE
ROOT_OBJECT_NAME	登録名	アラートを通知したサーバ名を示
		します。(※2)
OBJECT_NAME	オブジェクト名	アラートの発生部位を示します。
OCCURRENCE	事象種別	SVP
HCSM_ALERT_LEVEL	アラートレベル	アラートレベルを示します。
HCSM_RESOURCE_NAME	リソース名	リソース名を示します。(※2)
HCSM_ALERT_ID	アラート ID	アラート ID を示します。
HCSM_RECEIVE_TIME	受信日時	アラートの受信日時を示します。
		(%1)
HCSM_ALERT_NO	アラート番号	JP1 イベント通知ツールでは空
		文字列になります。
HCSM_LOCATION	発生個所	アラートの発生個所を示します。
HCSM_OCCURRENCE_TIME	発生日時	アラートの発生日時を示します。
		(※1)

※1 ··· JP1 イベント通知ツールでは、ツールが JP1/Network Node Manager i から呼び出された時の時刻が通知されます。

※2 ···JP1 イベント通知ツールでは、「〈モデル名〉BMC(〈iLO/RCM の IP アドレス〉)」の形式で通知されます。

### 例:

HA8000V/DL380 Gen10 BMC(192.168.1.1)



## 付録 B JP1 イベント通知ツールが 通知するアラートメッセージ

この章では、JP1 イベント通知ツールが発行するアラートメッセージー覧について説明します。

## アラートメッセージー覧

アラート ID 一覧を次の表に示します。

#### 凡例

[アラート ID]

メッセージのアラート ID を示します。JP1 イベントの拡張属性 HCSM\_ALERT\_ID の値です。

### [アラートレベル]

メッセージのアラートレベルを示します。(情報/警告/障害レベル)。JP1 イベントの拡張属性 HCSM\_ALERT\_LEVEL の値です。

#### 「メッセージ]

メッセージを示します。メッセージ内の"X"、"Y"には文字が入ります。JP1 イベントの基本属性の1つです。

アラート ID	アラートレベル	メッセージ		
内容				
0xFD40	警告	サーバで警告イベントが発生しまし		
		た。		
		(指摘部位:X、発生事象:Y)		
[意味] サーバで警告レベルのイベントが発生したことを示します。				
X はイベント発生部位を示します。Y は発生事象を示します。				
[対処] JP1 イベント通知ツールアラート一覧を参照してください。				
0xFD41	障害	サーバで障害が発生しました。		
		(指摘部位:X、発生事象:Y)		
[意味] サーバで障害レベルのイベントが発生したことを示します。				
X はイベント発生部位を示します。Y は発生事象を示します。				
[対処] JP1 イベント通知ツールアラート一覧を参照してください。				
0xFD7F	情報	イベントが記録されました。		
		(指摘部位:X、発生事象:Y)		
[意味] X に示す部位に関して、イベントが記録されたことを示します。				
Y は記録されたイベントを示します。				
[対処] JP1 イベント通知ツールアラート一覧を参照してください。				



## 付録 C Java 実行環境変更時の設定 見直し手順

この章では管理サーバの Java 実行環境を変更した場合の JP1 イベント通知ツールの設定の変更と確認方法を説明します。

## 管理サーバの Java 実行環境を アップデートした場合

svevcred -list コマンドを実行して認証情報の一覧が表示されることを確認してください。エラーが表示される場合は「svevcred コマンド」を参照してエラーの対処方法を確認してください。

また、実行環境強化サポートオプション for Java を使用する場合は SVEVTOOL\_JAVA\_OPTS のシステム環境変数の設定も確認してください。

## 管理サーバに複数の Java 実行 環境をインストールする場合

管理サーバに複数の Java 実行環境をインストールする場合には JP1 イベント通知ツールが使用する Java 実行環境を明示的に指定してください。

以下の手順で JP1 イベント通知ツールが使用する Java 実行環境を指定してください。

- (1) 「システム環境変数の設定」を参照して JP1 イベント通知ツールが使う Java 実行環境の java.exe が格納されているフォルダのパスをシステム環境変数 SVEVTOOL\_JAVA\_PATH に設定してください。
- (2) svevcred -list を実行して認証情報の一覧が表示されることを確認してください。エラーが表示される場合は「svevcred コマンド」のエラーメッセージの対処を参照し、SVEVTOOL\_JAVA\_PATH のシステム環境変数が正しく設定されていることを確認してください。また、実行環境強化サポートオプション for Java を使用する場合はSVEVTOOL JAVA OPTS のシステム環境変数の設定も確認してください。



## 付録 D オープンソースソフトウェ アのライセンス通知

本製品に組み込まれたソフトウェアは、複数の独立したソフトウェアで構成され、個々のソフトウェアはそれぞれ日立ヴァンタラまたは第三者の著作権が存在します。

本製品に含まれる日立ヴァンタラ自身が開発または作成したソフトウェアには、日立ヴァンタラの所有権および知的財産権が存在します。また、同様にこれらのソフトウェアに付帯したドキュメントなどにも、日立ヴァンタラの所有権および知的財産権が存在します。これらについては、著作権法その他の法律により保護されています。

本製品では、日立ヴァンタラ自身の開発または作成したソフトウェアのほかに、この章で示すオープンソースソフトウェアをそれぞれのソフトウェア使用許諾契約書にしたがい使用しています。

弊社は、お客様のご要求に応じて、GNU General Public License (GPL)など、ソースコードの提供義務が記載された使用許諾条件に基づき使用許諾されるソフトウェアのソースコードを、記録媒体 (CD-ROM または DVD-ROM) でお客様にご提供いたします。その際、弊社は記録媒体の費用、送料および手数料をお客様にご請求いたしますのでご了承ください。

なお、ソースコードのご要求は、Web コンソールにて BMC ファームウェアバージョンをご確認のうえ、お買い求め先へご連絡ください。また、オープンソースソフトウェアに関するお問い合わせについても、お買い求め先へご連絡ください。

## D.1 ライセンス通知

本製品の一部には下記ライセンスのオープンソースソフトウェアが含まれています。

#	オープンソースソフトウェア	ライセンス
1	org.glassfish.jersey.core:jersey-client	COMMON DEVELOPMENT AND DISTRIBUTION LICENSE Version
2	org.glassfish.jersey.core:jersey-common	1.1
3	HK2(hk2-api)	GNU General Public License Version 2 with "CLASSPATH"
4	HK2(hk2-utils)	EXCEPTION TO THE GPL

5	HK2(hk2-locator)	VERSION 2 by Oracle
6	org.glassfish.hk2.external:aopalliance- repackaged	
7	org.glassfish.hk2:osgi-resource-locator	
8	org.glassfish.hk2.external:javax.inject	
9	org.glassfish.jersey.bundles.repackaged;jersey -guava	
10	org.glassfish.jersey.media:jersey-media-json- jackson	
11	org.glassfish.jersey.ext;jersey-entity-filtering	
12	javax.ws.rs:javax.ws.rs-api	
13	javax.annotation:javax.annotation-api	COMMON DEVELOPMENT AND DISTRIBUTION LICENSE Version 1.0 governed by the laws of the State of California  GNU General Public License Version 2 with "CLASSPATH" EXCEPTION TO THE GPL
		VERSION 2 by Sun Microsystems
14	javax.inject;javax.inject	Apache License, Version 2.0
15	com.fasterxml.jackson.core;jackson- annotations	
16	com.fasterxml.jackson.core:jackson-core	
17	com.fasterxml.jackson.core;jackson-databind	
18	com.fasterxml.jackson.jaxrs:jackson-jaxrs- base	
19	com.fasterxml.jackson.jaxrs:jackson-jaxrs- json-provider	
20	com.fasterxml.jackson.module:jackson- module-jaxb-annotations	
21	Javassist	Apache License, Version 2.0
		GNU Lesser General Public License Version 2.1
		Mozilla Public License Version 1.1
22	SNMP4J	Apache License, Version 2.0

## COMMON DEVELOPMENT AND DISTRIBUTION LICENSE (CDDL) Version 1.1

- 1. Definitions.
- 1.1. "Contributor" means each individual or entity that creates or contributes to the creation of Modifications.
- 1.2. "Contributor Version" means the combination of the Original Software, prior Modifications used by a Contributor (if any), and the Modifications made by that particular Contributor.
- 1.3. "Covered Software" means (a) the Original Software, or (b) Modifications, or (c) the combination of files containing Original Software with files containing Modifications, in each case including portions thereof.
- 1.4. "Executable" means the Covered Software in any form other than Source Code.
- 1.5. "Initial Developer" means the individual or entity that first makes Original Software available under this License.
- 1.6. "Larger Work" means a work which combines Covered Software or portions thereof with code not governed by the terms of this License.
- 1.7. "License" means this document.
- 1.8. "Licensable" means having the right to grant, to the maximum extent possible, whether at the time of the initial grant or subsequently acquired, any and all of the rights conveyed herein.
- 1.9. "Modifications" means the Source Code and Executable form of any of the following:
- A. Any file that results from an addition to, deletion from or modification of the contents of a file containing Original Software or previous Modifications;
- B. Any new file that contains any part of the Original Software or previous Modification; or
- C. Any new file that is contributed or otherwise made available under the terms of this License.
- 1.10. "Original Software" means the Source Code and Executable form of computer software code that is originally released under this License.
- 1.11. "Patent Claims" means any patent claim(s), now owned or hereafter acquired, including without limitation, method, process, and apparatus claims, in any patent Licensable by grantor.
- 1.12. "Source Code" means (a) the common form of computer software code in which modifications are made and (b) associated documentation included in or with such code.
- 1.13. "You" (or "Your") means an individual or a legal entity exercising rights under, and complying with all of the terms of, this License. For legal entities, "You" includes any entity which controls, is controlled by, or is under common control with You. For purposes of this definition, "control" means (a) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (b) ownership of more than fifty percent (50%) of the outstanding shares or beneficial ownership of such entity.

### 2. License Grants.

### 2.1. The Initial Developer Grant.

Conditioned upon Your compliance with Section 3.1 below and subject to third party intellectual property claims, the Initial Developer hereby grants You a world-wide, royalty-free, non-exclusive license:

- (a) under intellectual property rights (other than patent or trademark) Licensable by Initial Developer, to use, reproduce, modify, display, perform, sublicense and distribute the Original Software (or portions thereof), with or without Modifications, and/or as part of a Larger Work; and
- (b) under Patent Claims infringed by the making, using or selling of Original Software, to make, have made, use, practice, sell, and offer for sale, and/or otherwise dispose of the Original Software (or portions thereof).
- (c) The licenses granted in Sections 2.1(a) and (b) are effective on the date Initial Developer first distributes or otherwise makes the Original Software available to a third party under the terms of this License.
- (d) Notwithstanding Section 2.1(b) above, no patent license is granted: (1) for code that You delete from the Original Software, or (2) for infringements caused by: (i) the modification of the Original Software, or (ii) the combination of the Original Software with other software or devices.

#### 2.2. Contributor Grant.

Conditioned upon Your compliance with Section 3.1 below and subject to third party intellectual property claims, each Contributor hereby grants You a world-wide, royalty-free, non-exclusive license:

- (a) under intellectual property rights (other than patent or trademark) Licensable by Contributor to use, reproduce, modify, display, perform, sublicense and distribute the Modifications created by such Contributor (or portions thereof), either on an unmodified basis, with other Modifications, as Covered Software and/or as part of a Larger Work; and
- (b) under Patent Claims infringed by the making, using, or selling of Modifications made by that Contributor either alone and/or in combination with its Contributor Version (or portions of such combination), to make, use, sell, offer for sale, have made, and/or otherwise dispose of: (1) Modifications made by that Contributor (or portions thereof); and (2) the combination of Modifications made by that Contributor with its Contributor Version (or portions of such combination).
- (c) The licenses granted in Sections 2.2(a) and 2.2(b) are effective on the date Contributor first distributes or otherwise makes the Modifications available to a third party.
- (d) Notwithstanding Section 2.2(b) above, no patent license is granted: (1) for any code that Contributor has deleted from the Contributor Version; (2) for infringements caused by: (i) third party modifications of Contributor Version, or (ii) the combination of Modifications made by that Contributor with other software (except as part of the Contributor Version) or other devices; or (3)

under Patent Claims infringed by Covered Software in the absence of Modifications made by that Contributor.

### 3. Distribution Obligations.

### 3.1. Availability of Source Code.

Any Covered Software that You distribute or otherwise make available in Executable form must also be made available in Source Code form and that Source Code form must be distributed only under the terms of this License. You must include a copy of this License with every copy of the Source Code form of the Covered Software You distribute or otherwise make available. You must inform recipients of any such Covered Software in Executable form as to how they can obtain such Covered Software in Source Code form in a reasonable manner on or through a medium customarily used for software exchange.

#### 3.2. Modifications.

The Modifications that You create or to which You contribute are governed by the terms of this License. You represent that You believe Your Modifications are Your original creation(s) and/or You have sufficient rights to grant the rights conveyed by this License.

### 3.3. Required Notices.

You must include a notice in each of Your Modifications that identifies You as the Contributor of the Modification. You may not remove or alter any copyright, patent or trademark notices contained within the Covered Software, or any notices of licensing or any descriptive text giving attribution to any Contributor or the Initial Developer.

### 3.4. Application of Additional Terms.

You may not offer or impose any terms on any Covered Software in Source Code form that alters or restricts the applicable version of this License or the recipients' rights hereunder. You may choose to offer, and to charge a fee for, warranty, support, indemnity or liability obligations to one or more recipients of Covered Software. However, you may do so only on Your own behalf, and not on behalf of the Initial Developer or any Contributor. You must make it absolutely clear that any such warranty, support, indemnity or liability obligation is offered by You alone, and You hereby agree to indemnify the Initial Developer and every Contributor for any liability incurred by the Initial Developer or such Contributor as a result of warranty, support, indemnity or liability terms You offer.

### 3.5. Distribution of Executable Versions.

You may distribute the Executable form of the Covered Software under the terms of this License or under the terms of a license of Your choice, which may contain terms different from this License, provided that You are in compliance with the terms of this License and that the license for the Executable form does not attempt to limit or alter the recipient's rights in the Source Code form from the rights set forth in this License. If You distribute the Covered

Software in Executable form under a different license, You must make it absolutely clear that any terms which differ from this License are offered by You alone, not by the Initial Developer or Contributor. You hereby agree to indemnify the Initial Developer and every Contributor for any liability incurred by the Initial Developer or such Contributor as a result of any such terms You offer.

### 3.6. Larger Works.

You may create a Larger Work by combining Covered Software with other code not governed by the terms of this License and distribute the Larger Work as a single product. In such a case, You must make sure the requirements of this License are fulfilled for the Covered Software.

### 4. Versions of the License.

### 4.1. New Versions.

Oracle is the initial license steward and may publish revised and/or new versions of this License from time to time. Each version will be given a distinguishing version number. Except as provided in Section 4.3, no one other than the license steward has the right to modify this License.

### 4.2. Effect of New Versions.

You may always continue to use, distribute or otherwise make the Covered Software available under the terms of the version of the License under which You originally received the Covered Software. If the Initial Developer includes a notice in the Original Software prohibiting it from being distributed or otherwise made available under any subsequent version of the License, You must distribute and make the Covered Software available under the terms of the version of the License under which You originally received the Covered Software. Otherwise, You may also choose to use, distribute or otherwise make the Covered Software available under the terms of any subsequent version of the License published by the license steward.

### 4.3. Modified Versions.

When You are an Initial Developer and You want to create a new license for Your Original Software, You may create and use a modified version of this License if You: (a) rename the license and remove any references to the name of the license steward (except to note that the license differs from this License); and (b) otherwise make it clear that the license contains terms which differ from this License.

### 5. DISCLAIMER OF WARRANTY.

COVERED SOFTWARE IS PROVIDED UNDER THIS LICENSE ON AN "AS IS" BASIS, WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES THAT THE COVERED SOFTWARE IS FREE OF DEFECTS, MERCHANTABLE, FIT FOR A PARTICULAR PURPOSE OR NON-INFRINGING. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE COVERED SOFTWARE IS WITH YOU. SHOULD ANY COVERED SOFTWARE PROVE DEFECTIVE IN ANY

RESPECT, YOU (NOT THE INITIAL DEVELOPER OR ANY OTHER CONTRIBUTOR) ASSUME THE COST OF ANY NECESSARY SERVICING, REPAIR OR CORRECTION. THIS DISCLAIMER OF WARRANTY CONSTITUTES AN ESSENTIAL PART OF THIS LICENSE. NO USE OF ANY COVERED SOFTWARE IS AUTHORIZED HEREUNDER EXCEPT UNDER THIS DISCLAIMER.

### 6. TERMINATION.

- 6.1. This License and the rights granted hereunder will terminate automatically if You fail to comply with terms herein and fail to cure such breach within 30 days of becoming aware of the breach. Provisions which, by their nature, must remain in effect beyond the termination of this License shall survive.
- 6.2. If You assert a patent infringement claim (excluding declaratory judgment actions) against Initial Developer or a Contributor (the Initial Developer or Contributor against whom You assert such claim is referred to as "Participant") alleging that the Participant Software (meaning the Contributor Version where the Participant is a Contributor or the Original Software where the Participant is the Initial Developer) directly or indirectly infringes any patent, then any and all rights granted directly or indirectly to You by such Participant, the Initial Developer (if the Initial Developer is not the Participant) and all Contributors under Sections 2.1 and/or 2.2 of this License shall, upon 60 days notice from Participant terminate prospectively and automatically at the expiration of such 60 day notice period, unless if within such 60 day period You withdraw Your claim with respect to the Participant Software against such Participant either unilaterally or pursuant to a written agreement with Participant.
- 6.3. If You assert a patent infringement claim against Participant alleging that the Participant Software directly or indirectly infringes any patent where such claim is resolved (such as by license or settlement) prior to the initiation of patent infringement litigation, then the reasonable value of the licenses granted by such Participant under Sections 2.1 or 2.2 shall be taken into account in determining the amount or value of any payment or license.
- 6.4. In the event of termination under Sections 6.1 or 6.2 above, all end user licenses that have been validly granted by You or any distributor hereunder prior to termination (excluding licenses granted to You by any distributor) shall survive termination.

### 7. LIMITATION OF LIABILITY.

UNDER NO CIRCUMSTANCES AND UNDER NO LEGAL THEORY, WHETHER TORT (INCLUDING NEGLIGENCE), CONTRACT, OR OTHERWISE, SHALL YOU, THE INITIAL DEVELOPER, ANY OTHER CONTRIBUTOR, OR ANY DISTRIBUTOR OF COVERED SOFTWARE, OR ANY SUPPLIER OF ANY OF SUCH PARTIES, BE LIABLE TO ANY PERSON FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY CHARACTER INCLUDING,

WITHOUT LIMITATION, DAMAGES FOR LOSS OF GOODWILL, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, OR ANY AND ALL OTHER COMMERCIAL DAMAGES OR LOSSES, EVEN IF SUCH PARTY SHALL HAVE BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. THIS LIMITATION OF LIABILITY SHALL NOT APPLY TO LIABILITY FOR DEATH OR PERSONAL INJURY RESULTING FROM SUCH PARTY'S NEGLIGENCE TO THE EXTENT APPLICABLE LAW PROHIBITS SUCH LIMITATION. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THIS EXCLUSION AND LIMITATION MAY NOT APPLY TO YOU.

### 8. U.S. GOVERNMENT END USERS.

The Covered Software is a "commercial item," as that term is defined in 48 C.F.R. 2.101 (Oct. 1995), consisting of "commercial computer software" (as that term is defined at 48 C.F.R. § 252.227-7014(a)(1)) and "commercial computer software documentation" as such terms are used in 48 C.F.R. 12.212 (Sept. 1995). Consistent with 48 C.F.R. 12.212 and 48 C.F.R. 227.7202-1 through 227.7202-4 (June 1995), all U.S. Government End Users acquire Covered Software with only those rights set forth herein. This U.S. Government Rights clause is in lieu of, and supersedes, any other FAR, DFAR, or other clause or provision that addresses Government rights in computer software under this License.

### 9. MISCELLANEOUS.

This License represents the complete agreement concerning subject matter hereof. If any provision of this License is held to be unenforceable, such provision shall be reformed only to the extent necessary to make it enforceable. This License shall be governed by the law of the jurisdiction specified in a notice contained within the Original Software (except to the extent applicable law, if any, provides otherwise), excluding such jurisdiction's conflict-of-law provisions. Any litigation relating to this License shall be subject to the jurisdiction of the courts located in the jurisdiction and venue specified in a notice contained within the Original Software, with the losing party responsible for costs, including, without limitation, court costs and reasonable attorneys' fees and expenses. The application of the United Nations Convention on Contracts for the International Sale of Goods is expressly excluded. Any law or regulation which provides that the language of a contract shall be construed against the drafter shall not apply to this License. You agree that You alone are responsible for compliance with the United States export administration regulations (and the export control laws and regulation of any other countries) when You use, distribute or otherwise make available any Covered Software.

#### 10. RESPONSIBILITY FOR CLAIMS.

As between Initial Developer and the Contributors, each party is responsible for claims and damages arising, directly or indirectly, out of its utilization of rights under this License and You agree to work with Initial Developer and Contributors to distribute such responsibility on an equitable basis. Nothing herein is intended or shall be deemed to constitute any admission of liability.

# NOTICE PURSUANT TO SECTION 9 OF THE COMMON DEVELOPMENT AND DISTRIBUTION LICENSE (CDDL)

The code released under the CDDL shall be governed by the laws of the State of California (excluding conflict-of-law provisions). Any litigation relating to this License shall be subject to the jurisdiction of the Federal Courts of the Northern District of California and the state courts of the State of California, with venue lying in Santa Clara County, California.

### The GNU General Public License (GPL) Version 2, June 1991

Copyright (C) 1989, 1991 Free Software Foundation, Inc. 59 Temple Place, Suite 330, Boston, MA 02111-1307 USA Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

#### Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software—to make sure the software is free for all its users. This General Public License applies to most of the Free Software Foundation's software and to any other program whose authors commit to using it. (Some other Free Software Foundation software is covered by the GNU Library General Public License instead.) You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things.

To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

We protect your rights with two steps: (1) copyright the software, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the software.

Also, for each author's protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modified by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

The precise terms and conditions for copying, distribution and modification follow.

# TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

O. This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The "Program", below, refers to any such program or work, and a "work based on the Program" means either the Program or any derivative work under copyright law: that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term "modification".) Each licensee is addressed as "you".

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program (independent of having been made by running the Program). Whether that is true depends on what the Program does.

1. You may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of this License along with the Program.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

- 2. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:
- a) You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change.
- b) You must cause any work that you distribute or publish, that in whole or

in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License.

c) If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the user how to view a copy of this License. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Program, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it. Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Program. In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

- 3. You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following:
- a) Accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,
- b) Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,
- c) Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.) The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all

the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as distribution of the source code, even though third parties are not compelled to copy the source along with the object code.

- 4. You may not copy, modify, sublicense, or distribute the Program except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense or distribute the Program is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.
- 5. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Program or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Program (or any work based on the Program), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Program or works based on it.
- 6. Each time you redistribute the Program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties to this License.
- 7. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Program at all. For example, if a patent license would not permit royalty-free redistribution of the Program by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Program.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice. This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

- 8. If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.
- 9. The Free Software Foundation may publish revised and/or new versions of the General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Program specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of this License, you may choose any version ever published by the Free Software Foundation.

10. If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

### NO WARRANTY

11. BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE

QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

12. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, **INCLUDING** INCIDENTAL ANY GENERAL, SPECIAL, OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE ORINABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS). EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

#### END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Programs

If you develop a new program, and you want it to be of the greatest possible use to the public, the best way to achieve this is to make it free software which everyone can redistribute and change under these terms.

To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

One line to give the program's name and a brief idea of what it does.

Copyright (C) < year > < name of author >

This program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

You should have received a copy of the GNU General Public License along with this program; if not, write to the Free Software Foundation, Inc., 59 Temple Place, Suite 330, Boston, MA 02111-1307 USA

Also add information on how to contact you by electronic and paper mail.

If the program is interactive, make it output a short notice like this when it starts in an interactive mode:

Gnomovision version 69, Copyright (C) year name of author Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type `show w'. This is free software, and you are welcome to redistribute it under certain conditions; type `show c' for details.

The hypothetical commands 'show w' and 'show c' should show the appropriate parts of the General Public License. Of course, the commands you use may be called something other than 'show w' and 'show c'; they could even be mouse-clicks or menu items--whatever suits your program.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the program, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the program 'Gnomovision' (which makes passes at compilers) written by James Hacker. signature of Ty Coon, 1 April 1989

Ty Coon, President of Vice

This General Public License does not permit incorporating your program into proprietary programs. If your program is a subroutine library, you may consider it more useful to permit linking proprietary applications with the library. If this is what you want to do, use the GNU Library General Public License instead of this License.

□ "CLASSPATH" EXCEPTION TO THE GPL VERSION 2

Certain source files distributed by Oracle are subject to the following clarification and special exception to the GPL Version 2, but only where Oracle has expressly included in the particular source file's header the words "Oracle designates this particular file as subject to the "Classpath" exception as provided by Oracle in the License file that accompanied this code."

Linking this library statically or dynamically with other modules is making a combined work based on this library. Thus, the terms and conditions of the GNU General Public License Version 2 cover the whole combination.

As a special exception, the copyright holders of this library give you permission to link this library with independent modules to produce an executable, regardless of the license terms of these independent modules, and to copy and distribute the resulting executable under terms of your choice, provided that you also meet, for each linked independent module, the terms and conditions of the license of that module. An independent module is a module which is not derived from or based on this library. If you modify this library, you may extend this exception to your version of the library, but you are not obligated to do so. If you do not wish to do so, delete this exception statement from your version.

# COMMON DEVELOPMENT AND DISTRIBUTION LICENSE Version 1.0 governed by the laws of the State of California

-----

# NOTICE PURSUANT TO SECTION 9 OF THE COMMON DEVELOPMENT AND DISTRIBUTION LICENSE (CDDL)

The code released under the CDDL shall be governed by the laws of the State of California (excluding conflict-of-law provisions). Any litigation relating to this License shall be subject to the jurisdiction of the Federal Courts of the Northern District of California and the state courts of the State of California, with venue lying in Santa Clara County, California.

-----

COMMON DEVELOPMENT AND DISTRIBUTION LICENSE (CDDL) Version 1.0

#### 1. Definitions.

1.1. "Contributor" means each individual or entity that creates or contributes to the creation of

Modifications.

1.2. "Contributor Version" means the combination of the Original Software, prior Modifications used

by a Contributor (if any), and the Modifications made by that particular Contributor.

1.3. "Covered Software" means (a) the Original Software, or (b) Modifications, or (c) the combination

of files containing Original Software with files containing Modifications, in each case including

portions thereof.

- 1.4. "Executable" means the Covered Software in any form other than Source Code.
- 1.5. "Initial Developer" means the individual or entity that first makes Original Software available

under this License.

1.6. "Larger Work" means a work which combines Covered Software or portions thereof with code not

governed by the terms of this License.

- 1.7. "License" means this document.
- 1.8. "Licensable" means having the right to grant, to the maximum extent possible, whether at the

time of the initial grant or subsequently acquired, any and all of the rights conveyed herein.

1.9. "Modifications" means the Source Code and Executable form of any of the following:

A. Any file that results from an addition to, deletion from or modification of the contents of

a file containing Original Software or previous Modifications;

- B. Any new file that contains any part of the Original Software or previous Modification; or
- C. Any new file that is contributed or otherwise made available under the terms of this

License.

1.10. "Original Software" means the Source Code and Executable form of computer software code

that is originally released under this License.

1.11. "Patent Claims" means any patent claim(s), now owned or hereafter acquired, including without

limitation, method, process, and apparatus claims, in any patent Licensable by grantor.

1.12. "Source Code" means (a) the common form of computer software code in which modifications

are made and (b) associated documentation included in or with such code.

1.13. "You" (or "Your") means an individual or a legal entity exercising rights under, and complying

with all of the terms of, this License. For legal entities, "You" includes any entity which controls,

means (a) the power, direct or indirect, to cause the direction or management of such entity,

whether by contract or otherwise, or (b) ownership of more than fifty percent (50%) of the

outstanding shares or beneficial ownership of such entity.

#### 2. License Grants.

### 2.1. The Initial Developer Grant.

Conditioned upon Your compliance with Section 3.1 below and subject to third party intellectual

property claims, the Initial Developer hereby grants You a world-wide, royalty-free, non-exclusive

license:

(a) under intellectual property rights (other than patent or trademark) Licensable by Initial

Developer, to use, reproduce, modify, display, perform, sublicense and distribute

the Original Software (or portions thereof), with or without Modifications, and/or as part of

a Larger Work; and

(b) under Patent Claims infringed by the making, using or selling of Original Software,

to make, have made, use, practice, sell, and offer for sale, and/or otherwise dispose of

the Original Software (or portions thereof).

(c) The licenses granted in Sections 2.1(a) and (b) are effective on the date Initial

Developer first distributes or otherwise makes the Original Software available to a third party

under the terms of this License.

(d) Notwithstanding Section 2.1(b) above, no patent license is granted: (1) for code that You

delete from the Original Software, or (2) for infringements caused by: (i) the modification of

the Original Software, or (ii) the combination of the Original Software with other

software or devices.

#### 2.2. Contributor Grant.

Conditioned upon Your compliance with Section 3.1 below and subject to third party intellectual

property claims, each Contributor hereby grants You a world-wide, royalty-free, non-exclusive

license:

(a) under intellectual property rights (other than patent or trademark) Licensable by

Contributor to use, reproduce, modify, display, perform, sublicense and distribute

the Modifications created by such Contributor (or portions thereof), either on an unmodified

basis, with other Modifications, as Covered Software and/or as part of a Larger Work; and

(b) under Patent Claims infringed by the making, using, or selling of Modifications made by

that Contributor either alone and/or in combination with its Contributor Version (or portions

of such combination), to make, use, sell, offer for sale, have made, and/or otherwise dispose

of: (1) Modifications made by that Contributor (or portions thereof); and (2) the combination

of Modifications made by that Contributor with its Contributor Version (or portions  $\,$ 

of such combination).

(c) The licenses granted in Sections 2.2(a) and 2.2(b) are effective on the date Contributor

first distributes or otherwise makes the Modifications available to a third party.

(d) Notwithstanding Section 2.2(b) above, no patent license is granted: (1) for any code that

Contributor has deleted from the Contributor Version; (2) for infringements caused by: (i) third

party modifications of Contributor Version, or (ii) the combination of Modifications made

by that Contributor with other software (except as part of the Contributor Version) or other

devices; or (3) under Patent Claims infringed by Covered Software in the absence of

Modifications made by that Contributor.

#### 3. Distribution Obligations.

# 3.1. Availability of Source Code.

Any Covered Software that You distribute or otherwise make available in Executable form must

also be made available in Source Code form and that Source Code form must be distributed only

under the terms of this License. You must include a copy of this License with every copy of

the Source Code form of the Covered Software You distribute or otherwise make available. You must

inform recipients of any such Covered Software in Executable form as to how they can obtain such

Covered Software in Source Code form in a reasonable manner on or through a medium customarily

used for software exchange.

### 3.2. Modifications.

The Modifications that You create or to which You contribute are governed by the terms of this

License. You represent that You believe Your Modifications are Your original creation(s) and/or

You have sufficient rights to grant the rights conveyed by this License.

#### 3.3. Required Notices.

You must include a notice in each of Your Modifications that identifies You as the Contributor

of the Modification. You may not remove or alter any copyright, patent or trademark notices

contained within the Covered Software, or any notices of licensing or any descriptive text

giving attribution to any Contributor or the Initial Developer.

#### 3.4. Application of Additional Terms.

You may not offer or impose any terms on any Covered Software in Source Code form that alters or

restricts the applicable version of this License or the recipients' rights hereunder. You

may choose to offer, and to charge a fee for, warranty, support, indemnity or liability obligations

to one or more recipients of Covered Software. However, you may do so only on Your own behalf,

and not on behalf of the Initial Developer or any Contributor. You must make it absolutely clear

that any such warranty, support, indemnity or liability obligation is offered by You

alone, and You hereby agree to indemnify the Initial Developer and every Contributor for any

liability incurred by the Initial Developer or such Contributor as a result of warranty, support,

indemnity or liability terms You offer.

#### 3.5. Distribution of Executable Versions.

You may distribute the Executable form of the Covered Software under the terms of this License or

under the terms of a license of Your choice, which may contain terms different from this License,

provided that You are in compliance with the terms of this License and that the license for

the Executable form does not attempt to limit or alter the recipient's rights in the Source

Code form from the rights set forth in this License. If You distribute the Covered Software

in Executable form under a different license, You must make it absolutely clear that any terms

which differ from this License are offered by You alone, not by the Initial Developer or

Contributor. You hereby agree to indemnify the Initial Developer and every Contributor for any

liability incurred by the Initial Developer or such Contributor as a result of any such terms You offer.

#### 3.6. Larger Works.

You may create a Larger Work by combining Covered Software with other code not governed by the

terms of this License and distribute the Larger Work as a single product. In such a case, You must

make sure the requirements of this License are fulfilled for the Covered Software.

#### 4. Versions of the License.

#### 4.1. New Versions.

Sun Microsystems, Inc. is the initial license steward and may publish revised and/or new versions

of this License from time to time. Each version will be given a distinguishing version number. Except

as provided in Section 4.3, no one other than the license steward has the right to modify this

License.

#### 4.2. Effect of New Versions.

You may always continue to use, distribute or otherwise make the Covered Software available under

the terms of the version of the License under which You originally received the Covered

Software. If the Initial Developer includes a notice in the Original Software prohibiting it

from being distributed or otherwise made available under any subsequent version of the License,

You must distribute and make the Covered Software available under the terms of the version of the

License under which You originally received the Covered Software. Otherwise, You may also choose

to use, distribute or otherwise make the Covered Software available under the terms of

any subsequent version of the License published by the license steward.

#### 4.3. Modified Versions.

When You are an Initial Developer and You want to create a new license for Your Original Software,

You may create and use a modified version of this License if You: (a) rename the license and remove

any references to the name of the license steward (except to note that the license differs from this

License); and (b) otherwise make it clear that the license contains terms which differ from

this License.

#### 5. DISCLAIMER OF WARRANTY.

COVERED SOFTWARE IS PROVIDED UNDER THIS LICENSE ON AN "AS IS" BASIS, WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES THAT THE COVERED SOFTWARE IS FREE OF DEFECTS, MERCHANTABLE, FIT FOR A PARTICULAR PURPOSE OR NON-INFRINGING. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE COVERED SOFTWARE IS WITH YOU. SHOULD ANY COVERED SOFTWARE PROVE DEFECTIVE IN ANY RESPECT, YOU (NOT THE INITIAL DEVELOPER OR ANY OTHER CONTRIBUTOR) ASSUME THE COST OF ANY NECESSARY SERVICING, REPAIR OR CORRECTION. THIS DISCLAIMER OF WARRANTY CONSTITUTES AN ESSENTIAL PART OF THIS LICENSE. NO USE OF ANY COVERED SOFTWARE IS AUTHORIZED HEREUNDER EXCEPT UNDER THIS DISCLAIMER.

#### 6. TERMINATION.

6.1. This License and the rights granted hereunder will terminate automatically if You fail to comply

with terms herein and fail to cure such breach within 30 days of becoming aware of the breach.

Provisions which, by their nature, must remain in effect beyond the termination of this License

shall survive.

6.2. If You assert a patent infringement claim (excluding declaratory judgment actions) against

Initial Developer or a Contributor (the Initial Developer or Contributor against whom You assert

such claim is referred to as "Participant") alleging that the Participant Software (meaning the

Contributor Version where the Participant is a Contributor or the Original Software where the

Participant is the Initial Developer) directly or indirectly infringes any patent, then any and

all rights granted directly or indirectly to You by such Participant, the Initial Developer

(if the Initial Developer is not the Participant) and all Contributors under Sections 2.1

and/or 2.2 of this License shall, upon 60 days notice from Participant terminate prospectively

and automatically at the expiration of such 60 day notice period, unless if within such 60 day period

You withdraw Your claim with respect to the Participant Software against such Participant either

unilaterally or pursuant to a written agreement with Participant.

6.3. In the event of termination under Sections 6.1 or 6.2 above, all end user licenses that have been

validly granted by You or any distributor hereunder prior to termination (excluding licenses

granted to You by any distributor) shall survive termination.

#### 7. LIMITATION OF LIABILITY.

UNDER NO CIRCUMSTANCES AND UNDER NO LEGAL THEORY, WHETHER TORT (INCLUDING NEGLIGENCE), CONTRACT, OR OTHERWISE, SHALL YOU, THE INITIAL DEVELOPER, ANY OTHER CONTRIBUTOR, OR ANY DISTRIBUTOR OF COVERED SOFTWARE, OR ANY SUPPLIER OF ANY OF SUCH PARTIES, BE LIABLE TO ANY PERSON FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY CHARACTER INCLUDING, WITHOUT LIMITATION. DAMAGES FOR LOST PROFITS. LOSS OF GOODWILL, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, OR ANY AND ALL OTHER COMMERCIAL DAMAGES OR LOSSES, EVEN IF SUCH PARTY SHALL HAVE BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. THIS LIMITATION OF LIABILITY SHALL NOT APPLY TO LIABILITY FOR DEATH OR PERSONAL INJURY RESULTING FROM SUCH PARTY'S NEGLIGENCE TO THE EXTENT APPLICABLE LAW PROHIBITS SUCH LIMITATION. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THIS EXCLUSION AND LIMITATION MAY NOT APPLY TO YOU.

#### 8. U.S. GOVERNMENT END USERS.

The Covered Software is a "commercial item," as that term is defined in 48 C.F.R. 2.101 (Oct. 1995), consisting of "commercial computer software" (as that term is defined at 48 C.F.R. § 252.227-7014(a)(1)) and "commercial computer software documentation" as such terms are used in 48 C.F.R. 12.212 (Sept. 1995). Consistent with 48 C.F.R. 12.212 and 48 C.F.R. 227.7202-1 through 227.7202-4 (June 1995), all U.S. Government End Users acquire Covered Software with only those rights set forth herein. This U.S. Government Rights clause is in lieu of, and supersedes, any other FAR, DFAR, or other clause or provision that addresses Government rights in computer software under this License.

#### 9. MISCELLANEOUS.

This License represents the complete agreement concerning subject matter hereof. If any provision of this License is held to be unenforceable, such provision shall be reformed only to the extent necessary to make it enforceable. This License shall be governed by the law of the jurisdiction specified in a notice contained within the Original Software (except to the extent applicable law, if any, provides otherwise), excluding such jurisdiction's conflict-of-law provisions. Any litigation relating to this License shall be subject to the jurisdiction of the courts located in the jurisdiction and venue specified in a notice contained within the Original Software, with the losing party responsible for costs, including, without limitation, court costs and reasonable attorneys' fees and expenses. The application of the United Nations Convention on Contracts for the International Sale of Goods is expressly excluded. Any law or regulation which provides that the language of a contract shall be construed against the drafter shall not apply to this License. You agree that You alone are responsible for compliance with the United States export administration regulations (and the export control laws and regulation of any other countries) when You use, distribute or otherwise make available any Covered Software.

#### 10. RESPONSIBILITY FOR CLAIMS.

As between Initial Developer and the Contributors, each party is responsible for claims and damages arising, directly or indirectly, out of its utilization of rights under this License and You agree to work with Initial Developer and Contributors to distribute such responsibility on an equitable basis. Nothing herein is intended or shall be deemed to constitute any admission of liability.

# GNU General Public License Version 2 with "CLASSPATH" EXCEPTION TO THE GPL VERSION 2 by Sun Microsystems

-----

#### "CLASSPATH" EXCEPTION TO THE GPL VERSION 2

Certain source files distributed by Sun Microsystems, Inc. are subject to the following clarification and special exception to the GPL Version 2, but only where Sun has expressly included in the particular source file's header the words

"Sun designates this particular file as subject to the "Classpath" exception as provided by Sun in the License file that accompanied this code."

Linking this library statically or dynamically with other modules is making a combined work based on this library. Thus, the terms and conditions of the GNU General Public License Version 2 cover the whole combination.

As a special exception, the copyright holders of this library give you permission to link this library with independent modules to produce an

executable, regardless of the license terms of these independent modules, and to copy and distribute the resulting executable under terms of your choice, provided that you also meet, for each linked independent module, the terms and conditions of the license of that module.? An independent module is a module which is not derived from or based on this library.? If you modify this library, you may extend this exception to your version of the library, but you are not obligated to do so.? If you do not wish to do so, delete this exception statement from your version.

-----

The GNU General Public License (GPL) Version 2, June 1991

Copyright (C) 1989, 1991 Free Software Foundation, Inc. 59 Temple Place, Suite 330, Boston, MA 02111-1307 USA

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

#### Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users. This General Public License applies to most of the Free Software Foundation's software and to any other program whose authors commit to using it. (Some other Free Software Foundation software is covered by the GNU Library General Public License instead.) You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things.

To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

We protect your rights with two steps: (1) copyright the software, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the software.

Also, for each author's protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modified by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

The precise terms and conditions for copying, distribution and modification follow.

# TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The "Program", below, refers to any such program or work, and a "work based on the Program" means either the Program or any derivative work under copyright law: that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term "modification".) Each licensee is addressed as "you".

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program (independent of having been made by running the Program). Whether that is true depends on what the Program does.

1. You may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of this License along with the Program.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such

modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

- a) You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change.
- b) You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License.
- c) If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the user how to view a copy of this License. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Program, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Program.

In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

- 3. You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following:
- a) Accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,

- b) Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,
- c) Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.)

The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as distribution of the source code, even though third parties are not compelled to copy the source along with the object code.

- 4. You may not copy, modify, sublicense, or distribute the Program except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense or distribute the Program is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.
- 5. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Program or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Program (or any work based on the Program), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Program or works based on it.
- 6. Each time you redistribute the Program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties to this License.

7. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Program at all. For example, if a patent license would not permit royalty-free redistribution of the Program by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Program.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

- 8. If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.
- 9. The Free Software Foundation may publish revised and/or new versions of the General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Program specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of this

License, you may choose any version ever published by the Free Software Foundation.

10. If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

#### NO WARRANTY

11. BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

12. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

#### END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Programs

If you develop a new program, and you want it to be of the greatest possible use to the public, the best way to achieve this is to make it free software which everyone can redistribute and change under these terms.

To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

One line to give the program's name and a brief idea of what it does.

Copyright (C) < year > < name of author >

This program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

You should have received a copy of the GNU General Public License along with this program; if not, write to the Free Software Foundation, Inc., 59 Temple Place, Suite 330, Boston, MA 02111-1307 USA

Also add information on how to contact you by electronic and paper mail.

If the program is interactive, make it output a short notice like this when it starts in an interactive mode:

Gnomovision version 69, Copyright (C) year name of author Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type `show w'. This is free software, and you are welcome to redistribute it under certain conditions; type `show c' for details.

The hypothetical commands `show w' and `show c' should show the appropriate parts of the General Public License. Of course, the commands you use may be called something other than `show w' and `show c'; they could even be mouse-clicks or menu items--whatever suits your program.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the program, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the program 'Gnomovision' (which makes passes at compilers) written by James Hacker.

signature of Ty Coon, 1 April 1989 Ty Coon, President of Vice This General Public License does not permit incorporating your program into proprietary programs. If your program is a subroutine library, you may consider it more useful to permit linking proprietary applications with the library. If this is what you want to do, use the GNU Library General Public License instead of this License.

## **Apache License Version 2.0**

Apache License Version 2.0, January 2004 https://www.apache.org/licenses/

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

#### 1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

- 2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.
- 3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent

licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

- 4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:
- (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
- (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
- (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
- (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

- 6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.
- 7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.
- 8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.
- 9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

#### END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be

enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright [yyyy] [name of copyright owner]

Licensed under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the License at

https://www.apache.org/licenses/LICENSE-2.0

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

#### **GNU Lesser General Public License Version 2.1**

GNU LESSER GENERAL PUBLIC LICENSE Version 2.1, February 1999

Copyright (C) 1991, 1999 Free Software Foundation, Inc. 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

[This is the first released version of the Lesser GPL. It also counts as the successor of the GNU Library Public License, version 2, hence the version number 2.1.]

#### Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public Licenses are intended to guarantee your freedom to share and change free software—to make sure the software is free for all its users.

This license, the Lesser General Public License, applies to some specially designated software packages—typically libraries—of the

Free Software Foundation and other authors who decide to use it. You can use it too, but we suggest you first think carefully about whether this license or the ordinary General Public License is the better strategy to use in any particular case, based on the explanations below.

When we speak of free software, we are referring to freedom of use, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish); that you receive source code or can get it if you want it; that you can change the software and use pieces of it in new free programs; and that you are informed that you can do these things.

To protect your rights, we need to make restrictions that forbid distributors to deny you these rights or to ask you to surrender these rights. These restrictions translate to certain responsibilities for you if you distribute copies of the library or if you modify it.

For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link other code with the library, you must provide complete object files to the recipients, so that they can relink them with the library after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

We protect your rights with a two-step method: (1) we copyright the library, and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the library.

To protect each distributor, we want to make it very clear that there is no warranty for the free library. Also, if the library is modified by someone else and passed on, the recipients should know that what they have is not the original version, so that the original author's reputation will not be affected by problems that might be introduced by others.

Finally, software patents pose a constant threat to the existence of any free program. We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder. Therefore, we insist that any patent license obtained for a version of the library must be consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and

modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

# GNU LESSER GENERAL PUBLIC LICENSE TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License Agreement applies to any software library or other program which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Lesser General Public License (also called "this License"). Each licensee is addressed as "you".

A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an

appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

- 2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:
  - a) The modified work must itself be a software library.
  - b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.
  - c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.
  - d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of

this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the

Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

- a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)
- b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.
- c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.
- d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.
- e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

- 7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:
  - a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.
  - b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.
- 8. You may not copy, modify, sublicense, link with, or distribute the Library except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, link with, or distribute the Library is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.
- 9. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Library or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Library (or any work based on the Library), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Library or works based on it.
- 10. Each time you redistribute the Library (or any work based on the Library), the recipient automatically receives a license from the original licensor to copy, distribute, link with or modify the Library subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties with this License.

11. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Library at all. For example, if a patent license would not permit royalty-free redistribution of the Library by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Library.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

- 12. If the distribution and/or use of the Library is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Library under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.
- 13. The Free Software Foundation may publish revised and/or new versions of the Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Library does not specify a license version number, you may choose any version ever published by the Free Software Foundation.

14. If you wish to incorporate parts of the Library into other free programs whose distribution conditions are incompatible with these, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

#### NO WARRANTY

15. BECAUSE THE LIBRARY IS LICENSED FREE OF CHARGE, THERE IS NO

WARRANTY FOR THE LIBRARY, TO THE EXTENT PERMITTED BY APPLICABLE LAW.

EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR

OTHER PARTIES PROVIDE THE LIBRARY "AS IS" WITHOUT WARRANTY OF ANY

KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE

IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR

PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE

LIBRARY IS WITH YOU. SHOULD THE LIBRARY PROVE DEFECTIVE, YOU ASSUME

THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

16. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN

WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY

AND/OR REDISTRIBUTE THE LIBRARY AS PERMITTED ABOVE, BE LIABLE TO YOU

FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR

CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE

LIBRARY (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING

RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A

FAILURE OF THE LIBRARY TO OPERATE WITH ANY OTHER SOFTWARE), EVEN IF

SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

#### END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Libraries

If you develop a new library, and you want it to be of the greatest possible use to the public, we recommend making it free software that everyone can redistribute and change. You can do so by permitting redistribution under these terms (or, alternatively, under the terms of the ordinary General Public License).

To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

This library is free software; you can redistribute it and/or modify it under the terms of the GNU Lesser General Public License as published by the Free Software Foundation; either version 2.1 of the License, or (at your option) any later version.

This library is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU

Lesser General Public License for more details.

You should have received a copy of the GNU Lesser General Public

License along with this library; if not, write to the Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA

Also add information on how to contact you by electronic and paper mail.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the library, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the library 'Frob' (a library for tweaking knobs) written by James Random Hacker.

<signature of Ty Coon>, 1 April 1990 Ty Coon, President of Vice

That's all there is to it!

## Mozilla Public License Version 1.1

## MOZILLA PUBLIC LICENSE Version 1.1

-----

#### 1. Definitions.

- 1.0.1. "Commercial Use" means distribution or otherwise making the Covered Code available to a third party.
- 1.1. "Contributor" means each entity that creates or contributes to the creation of Modifications.
- 1.2. "Contributor Version" means the combination of the Original Code, prior Modifications used by a Contributor, and the Modifications made by that particular Contributor.
- 1.3. "Covered Code" means the Original Code or Modifications or the combination of the Original Code and Modifications, in each case including portions thereof.

- 1.4. "Electronic Distribution Mechanism" means a mechanism generally accepted in the software development community for the electronic transfer of data.
- 1.5. "Executable" means Covered Code in any form other than Source Code.
- 1.6. "Initial Developer" means the individual or entity identified as the Initial Developer in the Source Code notice required by Exhibit A.
- 1.7. "Larger Work" means a work which combines Covered Code or portions thereof with code not governed by the terms of this License.
- 1.8. "License" means this document.
- 1.8.1. "Licensable" means having the right to grant, to the maximum extent possible, whether at the time of the initial grant or subsequently acquired, any and all of the rights conveyed herein.
- 1.9. "Modifications" means any addition to or deletion from the substance or structure of either the Original Code or any previous Modifications. When Covered Code is released as a series of files, a Modification is:
  - A. Any addition to or deletion from the contents of a file containing Original Code or previous Modifications.
  - B. Any new file that contains any part of the Original Code or previous Modifications.
- 1.10. "Original Code" means Source Code of computer software code which is described in the Source Code notice required by Exhibit A as Original Code, and which, at the time of its release under this License is not already Covered Code governed by this License.
- 1.10.1. "Patent Claims" means any patent claim(s), now owned or hereafter acquired, including without limitation, method, process, and apparatus claims, in any patent Licensable by grantor.
- 1.11. "Source Code" means the preferred form of the Covered Code for making modifications to it, including all modules it contains, plus any associated interface definition files, scripts used to control compilation and installation of an Executable, or source code differential comparisons against either the Original Code or another

well known, available Covered Code of the Contributor's choice. The Source Code can be in a compressed or archival form, provided the appropriate decompression or de-archiving software is widely available for no charge.

1.12. "You" (or "Your") means an individual or a legal entity exercising rights under, and complying with all of the terms of, this License or a future version of this License issued under Section 6.1. For legal entities, "You" includes any entity which controls, is controlled by, or is under common control with You. For purposes of this definition, "control" means (a) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (b) ownership of more than fifty percent (50%) of the outstanding shares or beneficial ownership of such entity.

#### 2. Source Code License.

## 2.1. The Initial Developer Grant.

The Initial Developer hereby grants You a world-wide, royalty-free, non-exclusive license, subject to third party intellectual property claims:

- (a) under intellectual property rights (other than patent or trademark) Licensable by Initial Developer to use, reproduce, modify, display, perform, sublicense and distribute the Original Code (or portions thereof) with or without Modifications, and/or as part of a Larger Work; and
- (b) under Patents Claims infringed by the making, using or selling of Original Code, to make, have made, use, practice, sell, and offer for sale, and/or otherwise dispose of the Original Code (or portions thereof).
- (c) the licenses granted in this Section 2.1(a) and (b) are effective on the date Initial Developer first distributes Original Code under the terms of this License.
- (d) Notwithstanding Section 2.1(b) above, no patent license is granted: 1) for code that You delete from the Original Code; 2) separate from the Original Code; or 3) for infringements caused by: i) the modification of the Original Code or ii) the combination of the Original Code with other software or devices.

## 2.2. Contributor Grant.

Subject to third party intellectual property claims, each Contributor hereby grants You a world-wide, royalty-free, non-exclusive license

- (a) under intellectual property rights (other than patent or trademark) Licensable by Contributor, to use, reproduce, modify, display, perform, sublicense and distribute the Modifications created by such Contributor (or portions thereof) either on an unmodified basis, with other Modifications, as Covered Code and/or as part of a Larger Work; and
- (b) under Patent Claims infringed by the making, using, or selling of Modifications made by that Contributor either alone and/or in combination with its Contributor Version (or portions of such combination), to make, use, sell, offer for sale, have made, and/or otherwise dispose of: 1) Modifications made by that Contributor (or portions thereof); and 2) the combination of Modifications made by that Contributor with its Contributor Version (or portions of such combination).
- (c) the licenses granted in Sections 2.2(a) and 2.2(b) are effective on the date Contributor first makes Commercial Use of the Covered Code.
- (d) Notwithstanding Section 2.2(b) above, no patent license is granted: 1) for any code that Contributor has deleted from the Contributor Version; 2) separate from the Contributor Version; 3) for infringements caused by: i) third party modifications of Contributor Version or ii) the combination of Modifications made by that Contributor with other software (except as part of the Contributor Version) or other devices; or 4) under Patent Claims infringed by Covered Code in the absence of Modifications made by that Contributor.

#### 3. Distribution Obligations.

## 3.1. Application of License.

The Modifications which You create or to which You contribute are governed by the terms of this License, including without limitation Section 2.2. The Source Code version of Covered Code may be distributed only under the terms of this License or a future version of this License released under Section 6.1, and You must include a copy of this License with every copy of the Source Code You distribute. You may not offer or impose any terms on any Source Code version that alters or restricts the applicable version of this

License or the recipients' rights hereunder. However, You may include an additional document offering the additional rights described in Section 3.5.

## 3.2. Availability of Source Code.

Any Modification which You create or to which You contribute must be made available in Source Code form under the terms of this License either on the same media as an Executable version or via an accepted Electronic Distribution Mechanism to anyone to whom you made an Executable version available; and if made available via Electronic Distribution Mechanism, must remain available for at least twelve (12) months after the date it initially became available, or at least six (6) months after a subsequent version of that particular Modification has been made available to such recipients. You are responsible for ensuring that the Source Code version remains available even if the Electronic Distribution Mechanism is maintained by a third party.

## 3.3. Description of Modifications.

You must cause all Covered Code to which You contribute to contain a file documenting the changes You made to create that Covered Code and the date of any change. You must include a prominent statement that the Modification is derived, directly or indirectly, from Original Code provided by the Initial Developer and including the name of the Initial Developer in (a) the Source Code, and (b) in any notice in an Executable version or related documentation in which You describe the origin or ownership of the Covered Code.

## 3.4. Intellectual Property Matters

(a) Third Party Claims.

If Contributor has knowledge that a license under a third party's intellectual property rights is required to exercise the rights granted by such Contributor under Sections 2.1 or 2.2, Contributor must include a text file with the Source Code distribution titled "LEGAL" which describes the claim and the party making the claim in sufficient detail that a recipient will know whom to contact. If Contributor obtains such knowledge after the Modification is made available as described in Section 3.2, Contributor shall promptly modify the LEGAL file in all copies Contributor makes available thereafter and shall take other steps (such as notifying appropriate mailing lists or newsgroups) reasonably calculated to inform those who received the Covered Code that new knowledge has been obtained.

## (b) Contributor APIs.

If Contributor's Modifications include an application programming interface and Contributor has knowledge of patent licenses which are reasonably necessary to implement that API, Contributor must also include this information in the LEGAL file.

## (c) Representations.

Contributor represents that, except as disclosed pursuant to Section 3.4(a) above, Contributor believes that Contributor's Modifications are Contributor's original creation(s) and/or Contributor has sufficient rights to grant the rights conveyed by this License.

### 3.5. Required Notices.

You must duplicate the notice in Exhibit A in each file of the Source Code. If it is not possible to put such notice in a particular Source Code file due to its structure, then You must include such notice in a location (such as a relevant directory) where a user would be likely to look for such a notice. If You created one or more Modification(s) You may add your name as a Contributor to the notice described in Exhibit A. You must also duplicate this License in any documentation for the Source Code where You describe recipients' rights or ownership rights relating to Covered Code. You may choose to offer, and to charge a fee for, warranty, support, indemnity or liability obligations to one or more recipients of Covered Code. However, You may do so only on Your own behalf, and not on behalf of the Initial Developer or any Contributor. You must make it absolutely clear than any such warranty, support, indemnity or liability obligation is offered by You alone, and You hereby agree to indemnify the Initial Developer and every Contributor for any liability incurred by the Initial Developer or such Contributor as a result of warranty, support, indemnity or liability terms You offer.

## 3.6. Distribution of Executable Versions.

You may distribute Covered Code in Executable form only if the requirements of Section 3.1-3.5 have been met for that Covered Code, and if You include a notice stating that the Source Code version of the Covered Code is available under the terms of this License, including a description of how and where You have fulfilled the obligations of Section 3.2. The notice must be conspicuously included in any notice in an Executable version, related documentation or collateral in which You describe recipients' rights relating to the Covered Code. You may distribute the Executable version of Covered Code or ownership rights under a license of Your choice, which may contain terms different from this License, provided that You are in

compliance with the terms of this License and that the license for the Executable version does not attempt to limit or alter the recipient's rights in the Source Code version from the rights set forth in this License. If You distribute the Executable version under a different license You must make it absolutely clear that any terms which differ from this License are offered by You alone, not by the Initial Developer or any Contributor. You hereby agree to indemnify the Initial Developer and every Contributor for any liability incurred by the Initial Developer or such Contributor as a result of any such terms You offer.

## 3.7. Larger Works.

You may create a Larger Work by combining Covered Code with other code

not governed by the terms of this License and distribute the Larger Work as a single product. In such a case, You must make sure the requirements of this License are fulfilled for the Covered Code.

## 4. Inability to Comply Due to Statute or Regulation.

If it is impossible for You to comply with any of the terms of this License with respect to some or all of the Covered Code due to statute, judicial order, or regulation then You must: (a) comply with the terms of this License to the maximum extent possible; and (b) describe the limitations and the code they affect. Such description must be included in the LEGAL file described in Section 3.4 and must be included with all distributions of the Source Code. Except to the extent prohibited by statute or regulation, such description must be sufficiently detailed for a recipient of ordinary skill to be able to understand it.

## 5. Application of this License.

This License applies to code to which the Initial Developer has attached the notice in Exhibit A and to related Covered Code.

## 6. Versions of the License.

## 6.1. New Versions.

Netscape Communications Corporation ("Netscape") may publish revised

and/or new versions of the License from time to time. Each version will be given a distinguishing version number.

## 6.2. Effect of New Versions.

Once Covered Code has been published under a particular version of the License, You may always continue to use it under the terms of that version. You may also choose to use such Covered Code under the terms of any subsequent version of the License published by Netscape. No one other than Netscape has the right to modify the terms applicable to Covered Code created under this License.

#### 6.3. Derivative Works.

If You create or use a modified version of this License (which you may only do in order to apply it to code which is not already Covered Code governed by this License), You must (a) rename Your license so that the phrases "Mozilla", "MOZILLAPL", "MOZPL", "Netscape", "MPL", "NPL" or any confusingly similar phrase do not appear in your license (except to note that your license differs from this License) and (b) otherwise make it clear that Your version of the license contains terms which differ from the Mozilla Public License and Netscape Public License. (Filling in the name of the Initial Developer, Original Code or Contributor in the notice described in Exhibit A shall not of themselves be deemed to be modifications of this License.)

## 7. DISCLAIMER OF WARRANTY.

COVERED CODE IS PROVIDED UNDER THIS LICENSE ON AN "AS IS" BASIS.

WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING,

WITHOUT LIMITATION, WARRANTIES THAT THE COVERED CODE IS FREE OF

DEFECTS, MERCHANTABLE, FIT FOR A PARTICULAR PURPOSE OR NON-INFRINGING.

THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE COVERED CODE

IS WITH YOU. SHOULD ANY COVERED CODE PROVE DEFECTIVE IN ANY RESPECT,

YOU (NOT THE INITIAL DEVELOPER OR ANY OTHER CONTRIBUTOR) ASSUME THE

COST OF ANY NECESSARY SERVICING, REPAIR OR CORRECTION. THIS DISCLAIMER

OF WARRANTY CONSTITUTES AN ESSENTIAL PART OF THIS LICENSE. NO USE OF

ANY COVERED CODE IS AUTHORIZED HEREUNDER EXCEPT UNDER THIS DISCLAIMER.

## 8. TERMINATION.

- 8.1. This License and the rights granted hereunder will terminate automatically if You fail to comply with terms herein and fail to cure such breach within 30 days of becoming aware of the breach. All sublicenses to the Covered Code which are properly granted shall survive any termination of this License. Provisions which, by their nature, must remain in effect beyond the termination of this License shall survive.
- 8.2. If You initiate litigation by asserting a patent infringement claim (excluding declatory judgment actions) against Initial Developer or a Contributor (the Initial Developer or Contributor against whom You file such action is referred to as "Participant") alleging that:
- (a) such Participant's Contributor Version directly or indirectly infringes any patent, then any and all rights granted by such Participant to You under Sections 2.1 and/or 2.2 of this License shall, upon 60 days notice from Participant terminate prospectively, unless if within 60 days after receipt of notice You either: (i) agree in writing to pay Participant a mutually agreeable reasonable royalty for Your past and future use of Modifications made by such Participant, or (ii) withdraw Your litigation claim with respect to the Contributor Version against such Participant. If within 60 days of notice, a reasonable royalty and payment arrangement are not mutually agreed upon in writing by the parties or the litigation claim is not withdrawn, the rights granted by Participant to You under Sections 2.1 and/or 2.2 automatically terminate at the expiration of the 60 day notice period specified above.
- (b) any software, hardware, or device, other than such Participant's Contributor Version, directly or indirectly infringes any patent, then any rights granted to You by such Participant under Sections 2.1(b) and 2.2(b) are revoked effective as of the date You first made, used, sold, distributed, or had made, Modifications made by that Participant.
- 8.3. If You assert a patent infringement claim against Participant alleging that such Participant's Contributor Version directly or indirectly infringes any patent where such claim is resolved (such as by license or settlement) prior to the initiation of patent infringement litigation, then the reasonable value of the licenses granted by such Participant under Sections 2.1 or 2.2 shall be taken

into account in determining the amount or value of any payment or license.

8.4. In the event of termination under Sections 8.1 or 8.2 above, all end user license agreements (excluding distributors and resellers) which have been validly granted by You or any distributor hereunder prior to termination shall survive termination.

#### 9. LIMITATION OF LIABILITY.

UNDER NO CIRCUMSTANCES AND UNDER NO LEGAL THEORY, WHETHER TORT

(INCLUDING NEGLIGENCE), CONTRACT, OR OTHERWISE, SHALL YOU, THE INITIAL

DEVELOPER, ANY OTHER CONTRIBUTOR, OR ANY DISTRIBUTOR OF COVERED CODE,

OR ANY SUPPLIER OF ANY OF SUCH PARTIES, BE LIABLE TO ANY PERSON FOR

ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY

CHARACTER INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF GOODWILL,

WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, OR ANY AND ALL OTHER

COMMERCIAL DAMAGES OR LOSSES, EVEN IF SUCH PARTY SHALL HAVE BEEN

INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. THIS LIMITATION OF

LIABILITY SHALL NOT APPLY TO LIABILITY FOR DEATH OR PERSONAL INJURY

RESULTING FROM SUCH PARTY'S NEGLIGENCE TO THE EXTENT APPLICABLE LAW

PROHIBITS SUCH LIMITATION. SOME JURISDICTIONS DO NOT ALLOW THE

EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO

THIS EXCLUSION AND LIMITATION MAY NOT APPLY TO YOU.

## 10. U.S. GOVERNMENT END USERS.

The Covered Code is a "commercial item," as that term is defined in 48 C.F.R. 2.101 (Oct. 1995), consisting of "commercial computer software" and "commercial computer software documentation," as such terms are used in 48 C.F.R. 12.212 (Sept. 1995). Consistent with 48

C.F.R. 12.212 and 48 C.F.R. 227.7202-1 through 227.7202-4 (June 1995), all U.S. Government End Users acquire Covered Code with only those rights set forth herein.

## 11. MISCELLANEOUS.

This License represents the complete agreement concerning subject matter hereof. If any provision of this License is held to be unenforceable, such provision shall be reformed only to the extent necessary to make it enforceable. This License shall be governed by California law provisions (except to the extent applicable law, if any, provides otherwise), excluding its conflict-of-law provisions. With respect to disputes in which at least one party is a citizen of, or an entity chartered or registered to do business in the United States of America, any litigation relating to this License shall be subject to the jurisdiction of the Federal Courts of the Northern District of California, with venue lying in Santa Clara County, California, with the losing party responsible for costs, including without limitation, court costs and reasonable attorneys' fees and expenses. The application of the United Nations Convention on Contracts for the International Sale of Goods is expressly excluded. Any law or regulation which provides that the language of a contract shall be construed against the drafter shall not apply to this License.

## 12. RESPONSIBILITY FOR CLAIMS.

As between Initial Developer and the Contributors, each party is responsible for claims and damages arising, directly or indirectly, out of its utilization of rights under this License and You agree to work with Initial Developer and Contributors to distribute such responsibility on an equitable basis. Nothing herein is intended or shall be deemed to constitute any admission of liability.

## 13. MULTIPLE-LICENSED CODE.

Initial Developer may designate portions of the Covered Code as "Multiple-Licensed". "Multiple-Licensed" means that the Initial Developer permits you to utilize portions of the Covered Code under Your choice of the MPL or the alternative licenses, if any, specified by the Initial Developer in the file described in Exhibit A.

#### EXHIBIT A -Mozilla Public License.

"The contents of this file are subject to the Mozilla Public License Version 1.1 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the License at https://www.mozilla.org/MPL/

Software distributed under the License is distributed on an "AS IS" basis, WITHOUT WARRANTY OF ANY KIND, either express or implied. See the

License for the specific language governing rights and limitations under the License. The Original Code is \_\_\_\_\_\_. The Initial Developer of the Original Code is \_\_\_\_\_ Portions created by \_\_\_\_\_\_ are Copyright (C) \_\_\_\_\_ \_\_\_\_\_. All Rights Reserved. Contributor(s): Alternatively, the contents of this file may be used under the terms of the license (the "[ ] License"), in which case the provisions of [ ] License are applicable instead of those above. If you wish to allow use of your version of this file only under the terms of the [ ] License and not to allow others to use your version of this file under the MPL, indicate your decision by deleting the provisions above and replace them with the notice and other provisions required by the [\_\_\_] License. If you do not delete the provisions above, a recipient may use your version of this file under either the MPL or the License." [NOTE: The text of this Exhibit A may differ slightly from the text of the notices in the Source Code files of the Original Code. You should use the text of this Exhibit A rather than the text found in the Original Code Source Code for Your Modifications.]

## JP1 イベント通知ツール 取扱説明書

第 13 版 2025 年 2 月 無断転載を禁止します。

# @ 日立ヴァンタラ株式会社

〒244-0817 神奈川県横浜市戸塚区吉田町 292 番地