PureFlow GS1

トラフィックシェーパー
PF7000A
PF7001A
PF7010A
PF7011A
取扱説明書

第10版

製品を適切・安全にご使用いただくために，製品をご使用になる前に，本書を必ずお読みください。

本書は製品とともに保管してください。

アンリツネットワークス株式会社

安全情報の表示について

当社では人身事故や財産の損害を避けるために，危険の程度に応じて下記のようなシグナルワードを用いて安全に関する情報を提供しています。記述内容を十分理解して機器を操作するようにしてください。
下記の表示およびシンボルは，そのすべてが本装置に使用されているとは限りません。また，外観図などが本書に含まれるとき，製品に貼り付けたラベルなどがその図に記入されていない場合があります。

説明書中の表示について

⚠ **危険**　回避しなければ，死亡または重傷に至る切迫した危険状況があることを警告しています。

⚠ **警告**　回避しなければ，死亡または重傷に至る可能性がある潜在的危険について警告しています。

⚠ **注意**　回避しなければ，軽度または中程度の人体の傷害に至る可能性がある潜在的危険，または，物的損害の発生のみが予測されるような危険状況について警告しています。

機器に表示または説明書に使用されるシンボルについて

機器の内部や操作箇所の近くに，または説明書に，安全上あるいは操作上の注意を喚起するための表示があります。これらの表示に使用しているシンボルの意味についても十分理解して，注意に従ってください。

🚫　禁止行為を示します。丸の中や近くに禁止内容が描かれています。

◯　守るべき義務的行為を示します。丸の中や近くに守るべき内容が描かれています。

△　警告や注意を喚起することを示します。三角の中や近くにその内容が描かれています。

□　注意すべきことを示します。四角の中にその内容が書かれています。

♻　このマークを付けた部品がリサイクル可能であることを示しています。

安全にお使いいただくために

⚠ 警告

1　左のアラートマークを表示した箇所の操作をするときは，必ず取扱説明書を参照してください。取扱説明書を読まないで操作などを行った場合は，負傷する恐れがあります。また，本装置の特性劣化の原因にもなります。なお，このアラートマークは，危険を示すほかのマークや文言と共に用いられることもあります。

または

2　本装置へ電源を供給するには，本装置に添付された3芯電源コードを接地極付コンセントへ接続し，本装置が接地されるようにして使用してください。もし，接地極付コンセントがなく変換アダプタを使用する場合は，本装置へ電源を供給する前に，変換アダプタから出ている緑色の線の先端の端子を必ず接地してから，ご使用ください。接地しないで電源を投入すると，負傷または死につながる感電事故を引き起こす恐れがあります。また，精密部品を破損する可能性があります。

3　感電事故を防ぐため，LANケーブルによって本装置と接続されるパーソナルコンピュータ，ワークステーション，プリンタおよびそのほかのネットワーク機器も確実に接地してください。

4　落雷や配線設備の事故により，LANケーブルに意図しない高電圧が生じることがあります。本装置の金属部分やLANケーブルの取り扱いには十分注意してください。

修理

WARNING ⚠

5　本装置は，お客様自身では修理できませんので，カバーを開け，内部の分解などしないでください。本装置の保守は，所定の訓練を受け，火災や感電事故などの危険を熟知した当社または代理店のサービスマンにご依頼ください。本装置の内部には，高圧危険部分があり不用意にさわると負傷または死につながる感電事故を引き起こす恐れがあります。また，精密部品を破損する可能性があります。

転倒・落下

6　本装置は，必ず決められた設置方法に従って設置してください。本装置を決められた設置方法以外で設置すると，転倒やラックからの脱落などにより，負傷する恐れがあります。

安全にお使いいただくために

⚠ 注意

清掃

電源やファンの周囲のほこりを清掃してください。
・電源コンセントに付着したほこりなどは，ときどき，清掃してお使いください。
　ほこりが電極にたまると火災になる恐れがあります。
・ファンの周りのほこりなどを清掃し，風穴をふさがないようにしてください。
　風穴をふさぐと，本装置内部の温度が上昇し，火災になる恐れがあります。

表示

「Ready」LEDにおいて異常を表示している場合には，ただちに電源を切り当社サービス窓口にご連絡ください。

電源

本装置は，電源コードのプラグを抜くことにより電源を遮断するようになっています。
本装置は，容易に接近が可能なコンセントの近傍に設置してください。

安全にお使いいただくために
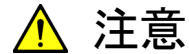
⚠ 注意

本装置内のメモリの バックアップ用電池交換 について	本装置はメモリのバックアップ用電池として，フッ化黒鉛リチウム電池を使用しています。交換は当社サービス部門にて行いますので，最寄りの当社営業所または代理店へお申し付けください。 注：本装置の電池寿命は購入後，約 8 年です。早めの交換が必要です。
外部記憶媒体について	本装置は，データなどの外部記憶媒体としてコンパクトフラッシュカードを使用できます。 コンパクトフラッシュカードは，その使用方法に誤りがあった場合や故障などにより大切な記憶内容を喪失しまうことがあります。 万一のことを考えて，バックアップをしておくことをお勧めします。 当社は，記憶内容の喪失について補償はいたしません。 下記の点に十分注意してご使用してください。 ・ アクセス中はコンパクトフラッシュカードを装置から抜きとらないでください。 ・ 静電気が加わると破損することがあります。
寿命がある部品について	本装置には，動作環境に対する通電時間により決まった寿命がある部品を使用しています。これらの部品は，保証期間内であっても寿命故障の場合は有償交換になります。長時間連続して使用する場合は，これらの部品の寿命に注意してください。詳細に関しては本文を参照してください。 ファン　　　：　　　本文「B.4 環境」参照 電源　　　　：　　　本文「B.4 環境」参照

保証

アンリツネットワークス株式会社は，納入後 1 年以内に製造上の原因に基づく故障が発生した場合は，無償で修復することを保証します。
ただし，次のような場合は上記保証の対象外とさせていただきます。

- 取扱説明書に記載されている保証対象外に該当する故障の場合。
- お客様の誤操作，誤使用，無断改造・修理による故障の場合。
- 通常の使用を明らかに超える過酷な使用による故障の場合。
- お客様の不適当または不十分な保守による故障の場合。
- 火災，風水害，地震，そのほか天災地変などの不可抗力による故障の場合。
- 指定外の接続機器，応用機器，応用部品，消耗品による故障の場合。
- 指定外の電源，設置場所による故障の場合。

また，この保証は，原契約者のみ有効で，再販売されたものについては保証しかねます。

なお，本製品の使用，あるいは使用不能によって生じた損害およびお客様の取引上の損失については，責任を負いかねます。

当社へのお問い合わせ

本製品の故障については，本説明書(紙版説明書では巻末，CD-ROM 版説明書では別ファイル)に記載の「本製品についてのお問い合わせ窓口」へご連絡ください。

保守契約について

保守契約を結んでいただくと種々のサービスを受けることが可能です。保守契約の詳細については，当社営業部門または代理店にお問い合わせください。

国外持出しに関する注意

1. 本製品は日本国内仕様であり, 外国の安全規格などに準拠していない場合もありますので, 国外へ持ち出して使用された場合, 当社は一切の責任を負いかねます。

2. 本製品および添付マニュアル類は, 輸出および国外持ち出しの際には, 「外国為替及び外国貿易法」により, 日本国政府の輸出許可や役務取引許可を必要とする場合があります。また, 米国の「輸出管理規則」により, 日本からの再輸出には米国政府の再輸出許可を必要とする場合があります。

   本製品や添付マニュアル類を輸出または国外持ち出しする場合は, 事前に必ず弊社の営業担当までご連絡ください。

   輸出規制を受ける製品やマニュアル類を廃棄処分する場合は, 軍事用途等に不正使用されないように, 破砕または裁断処理していただきますようお願い致します。

再利用部品について

アンリツグループは, 資源の再利用と製造エネルギの削減を目的として, リサイクル活動を推進しています。本製品は, 当社品質基準に適合した再利用部品(機構部品)を使用している場合があります。

廃棄対策について

本装置は, 砒素を含む化合物半導体およびリチウム電池を内蔵しています。廃棄する場合は各国の条例および各地方の条例に従って処理するよう注意してください。

電波妨害について

この装置は, 情報処理装置等電波障害自主規制協議会(VCCI)の基準に基づくクラス A 情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

JIS C 61000-3-2 適合品

この装置は, 高調波電流発生限度値:JIS C 61000-3-2 に適合しています。

はじめに

この取扱説明書は，PureFlow GS1トラフィックシェーパー（以下，本装置）の設置
および取り扱いについて記述したものです。

本装置には以下のラインナップがあります。
（本マニュアルでは PureFlow GS1 シリーズと呼びます）

- ・ PureFlow GS1-F（PF7000A）
- ・ PureFlow GS1-FB（PF7001A）
- ・ PureFlow GS1-G（PF7010A）
- ・ PureFlow GS1-GB（PF7011A）

本装置のコマンドの詳細および機能，システム接続方法については，下記説明書
をご利用ください。

**PureFlow GS1 トラフィックシェーパー PF7000A/PF7001A/PF7010A/PF7011A
取扱説明書コマンドリファレンス**
この説明書は，本装置で使用するコマンドの詳細について記述してあります。

**PureFlow GS1 トラフィックシェーパー PF7000A/PF7001A/PF7010A/PF7011A
取扱説明書コンフィギュレーションガイド**
この説明書は，本装置の持つ基本的な機能およびその機能を使ってネットワーク
を構築する際の具体的な設定例について記述してあります。

また，本製品に関連する下記文書または機能に関する文書が発行された場合，必
ずご一読ください。

- ・ 補足説明書
- ・ リリースノート
  （リリースノートの発行については，当社営業窓口へお問い合わせください）

目次

II

IV.

ここでは，本装置の概要と製品の構成について説明します。

ここでは，本装置の概要と製品の構成について説明します。

1.1　概要

PureFlow GS1 シリーズは，ネットワークの配信経路上に設置され，ユーザのネットワークポリシーに従いトラフィックコントロールを行う装置です。卓上に置いて，もしくはラックに実装してご使用いただく小型 BOX タイプの装置です。

PureFlow GS-1 シリーズには，ネットワークポートの通信速度により，以下の 2 種類のラインナップがあります。

・　PureFlow GS1-F（PF7000A：Network ポートが 100BASE-TX）
・　PureFlow GS1-FB（PF7001A：Network ポートが 100BASE-TX でバイパス機能を実装）
・　PureFlow GS1-G（PF7010A：Network ポートが 1000BASE-T）
・　PureFlow GS1-GB（PF7011A：Network ポートが 1000BASE-T でバイパス機能を実装）

図 1.1-1 に装置正面上部からの外観図を示します。
図 1.1-2 に装置背面上部からの外観図を示します。
図 1.1-3 に PureFlow GS1-F の正面図を示します。
図 1.1-4 に PureFlow GS1-FB の正面図を示します。
図 1.1-5 に PureFlow GS1-G の正面図を示します。
図 1.1-6 に PureFlow GS1-GB の正面図を示します。
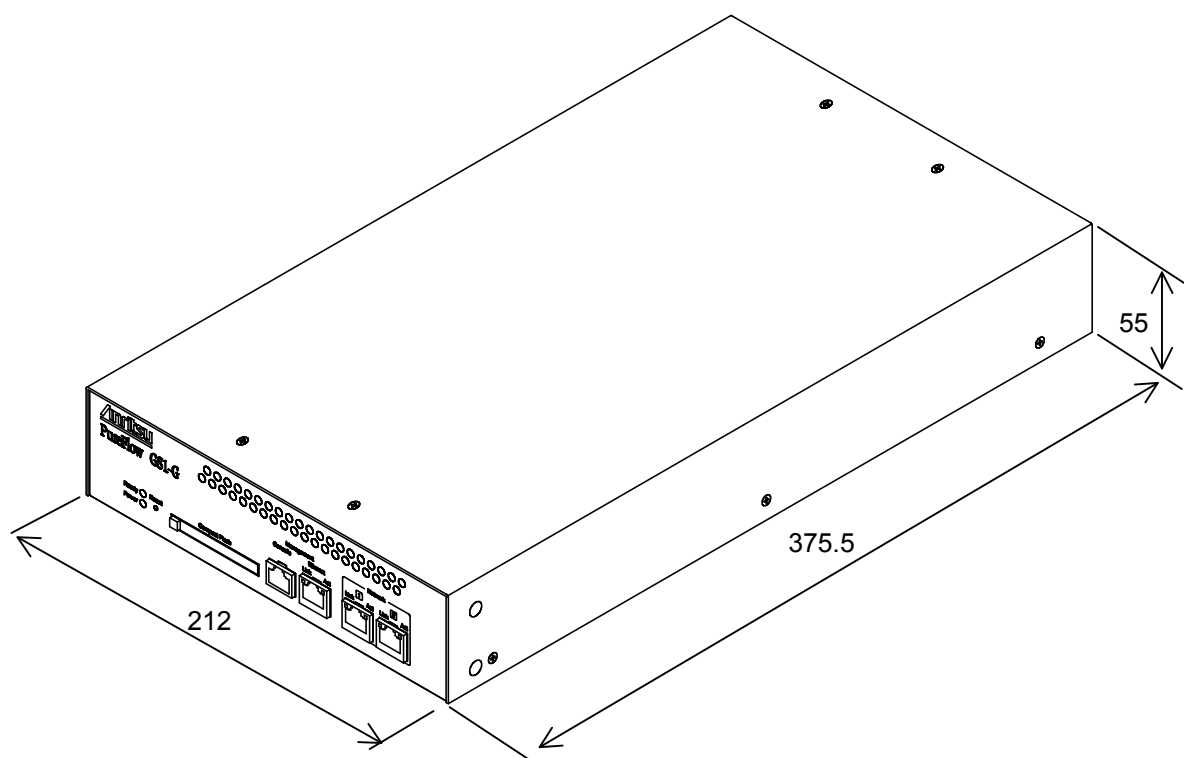
図 1.1-1　装置正面上部からの外観図
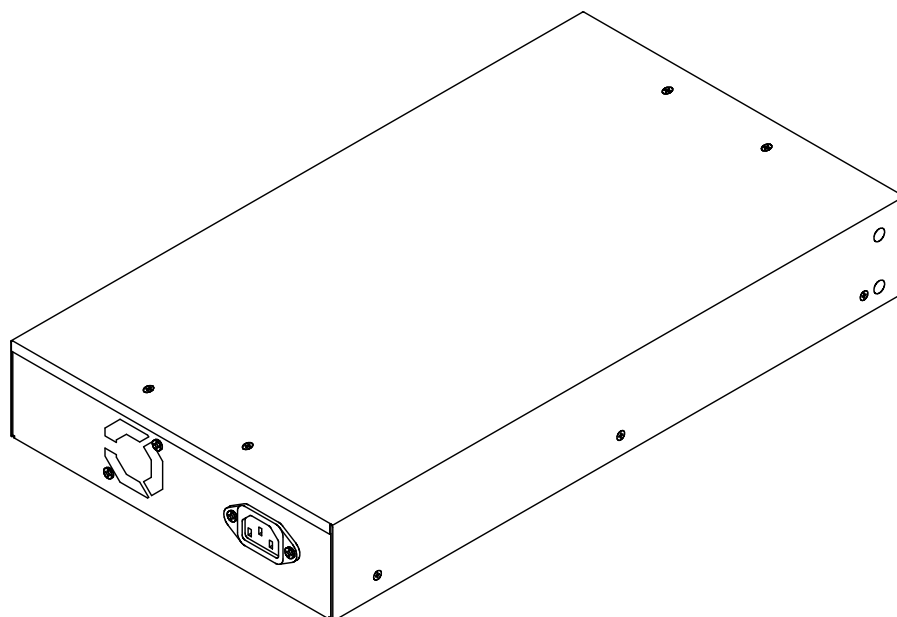
図 1.1-2　装置背面上部からの外観図
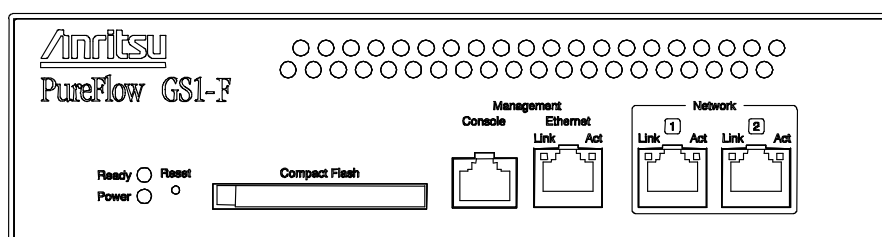
図 1.1-3　PureFlow GS1-F の正面図
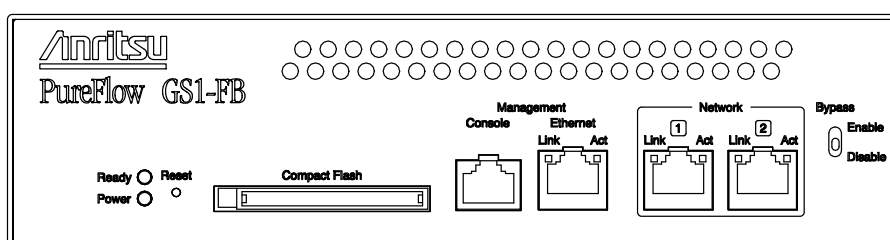
図 1.1-4　PureFlow GS1-FB の正面図
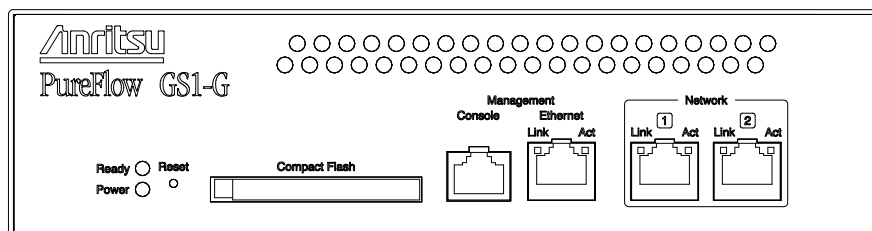
図 1.1-5　PureFlow GS1-G の正面図
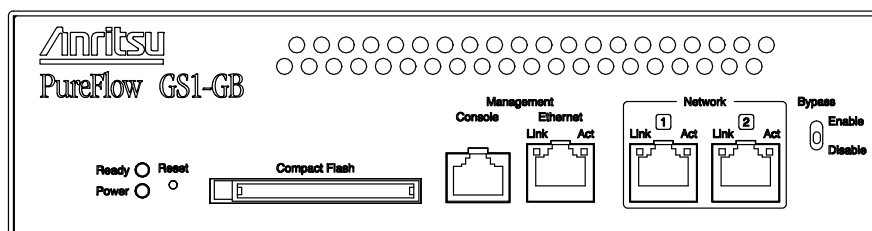
図 1.1-6　PureFlow GS1-GB の正面図

1.2 製品の構成

1.2.1 本体の構成

本装置の構成を以下に示します。

表 1.2.1-1　本体

機種名	形名	品名	備考
PureFlow GS1-F	PF7000A	トラフィックシェーパー	Network ポート: 100BASE-TX
PureFlow GS1-FB	PF7001A	トラフィックシェーパー	Network ポート: 100BASE-TX バイパス機能実装
PureFlow GS1-G	PF7010A	トラフィックシェーパー	Network ポート: 1000BASE-T
PureFlow GS1-GB	PF7011A	トラフィックシェーパー	Network ポート: 1000BASE-T バイパス機能実装

上記のいずれかとなります。

表 1.2.1-2　標準付属品

形名	品名	数量	備考
PJ001	AC 電源ケーブル	1	AC100 V 用
PJ012	コンソールケーブル	1	
WP012AW	PureFlow GS1 トラフィックシェーパー PF7000A/PF7001A/ PF7010A/PF7011A 取扱説明書 CD-ROM	1	CD-ROM
PB001	CF キャップ	1	CF カードスロット用 本体に実装
PB002	ゴム足	4	

4 種類の本体に共通です。

表 1.2.1-3　ソフトウェア

形名	品名	備考
PX700001A	基本ソフトウェア	本体に内蔵

4 種類の本体に共通です。

コンソールケーブル

φ12.7

3.6

ゴム足

3.9

3000

AC 電源ケーブル

47.8

9

CF キャップ
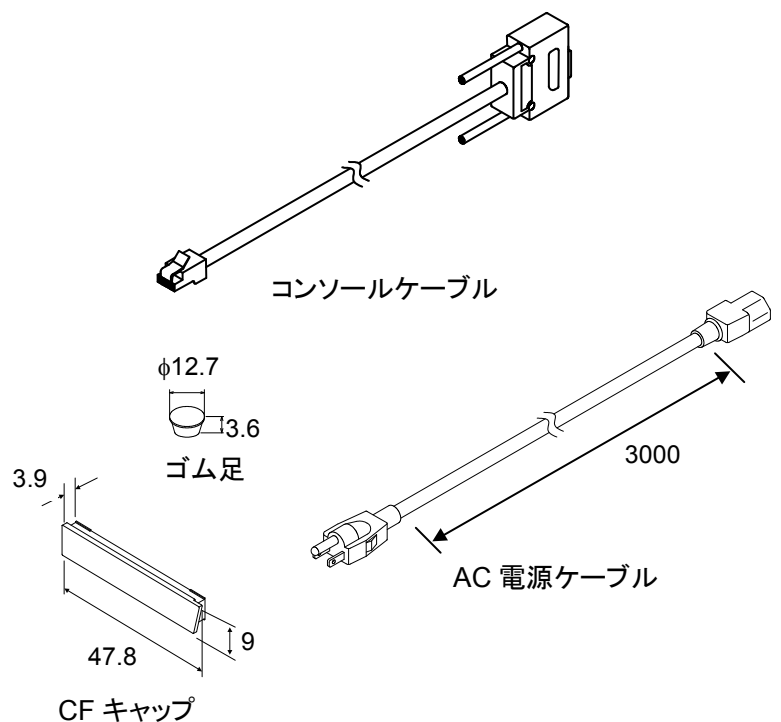
（単位：mm）

図 1.2.1-1　標準付属品外観

1.2.2　本体の概略

（1）　PureFlow GS1-F（PF7000A）

100BASE-TX の Network ポートを持つトラフィックシェーパーです。
128 Mbyte のパケットバッファメモリを搭載しています。

（2）　PureFlow GS1-FB（PF7001A）

100BASE-TX の Network ポートを持つトラフィックシェーパーです。
128 Mbyte のパケットバッファメモリを搭載しています。
停電などで本装置に電源が供給されなくなったときに Network ポート 1 と
Network ポート 2 が直結され，本装置に接続された機器同士が通信を継続
できるバイパス機能を実装しています。

（3）　PureFlow GS1-G（PF7010A）

1000BASE-T の Network ポートを持つトラフィックシェーパーです。
256 Mbyte のパケットバッファメモリを搭載しています。

（4）　PureFlow GS1-GB（PF7011A）

1000BASE-T の Network ポートを持つトラフィックシェーパーです。
256 Mbyte のパケットバッファメモリを搭載しています。
停電などで本装置に電源が供給されなくなったときに Network ポート 1 と
Network ポート 2 が直結され，本装置に接続された機器同士が通信を継続
できるバイパス機能を実装しています。

そのほか機能の違いについては，付録 B.1 を参照してください。

1.2.3　オプションの構成

本装置用に以下のオプションを用意しています。

表 1.2.3-1　オプション品

形名	品名	備考
PZ005	ラックマウントキット A	本装置 1 台取り付け用
PZ006	ラックマウントキット B	本装置 2 台取り付け用
PU700301A	GS1 ライセンスキー1	コンテンツ・アウェア・シェーピング機能を有効にするライセンスキー
PU700305A	GS1 ライセンスキー2	3 階層帯域制御機能を有効にするライセンスキー
PU700306A	GS1 ライセンスキー3	PF7010A と PF7011A に適用可能なシナリオ拡張機能を有効にするライセンスキー

表 1.2.3-2　本装置関連用品

形名	品名	備考
PZ007	CF カード	当社動作保証品
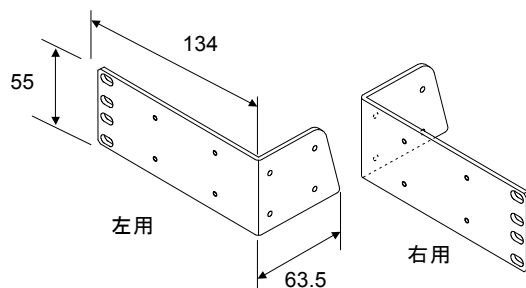
ラックマウントキット A
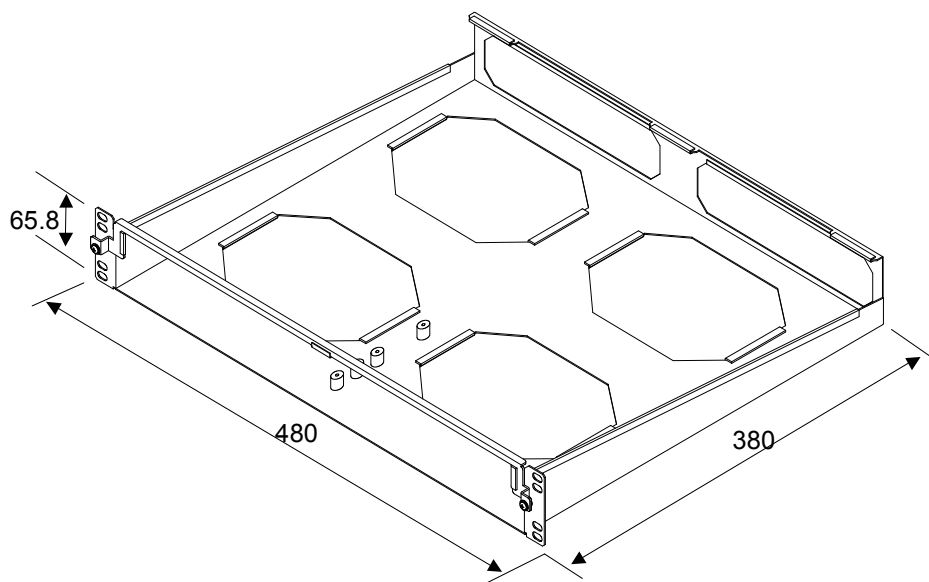
ラックマウントキット B
図 1.2.3-1　オプション外観

1.2.4 オプション品概略

（1） ラックマウントキット A

本装置を 19 インチラックに取り付けるためのオプション部品です。
本装置を 1 台取り付けることができます。
取り付け穴は，IEC／EIA インチピッチに対応しています。

（2） ラックマウントキット B

本装置を 19 インチラックに取り付けるためのオプション部品です。
本装置を 2 台並べて実装できます。
取り付け穴は，IEC／EIA インチピッチに対応しています。

（3） GS1 ライセンスキー 1

コンテンツ・アウェア・シェーピング機能を有効にするライセンスです。コンテンツ・アウェア・シェーピング機能を有効にすることで，音声通信や TV 会議などのアプリケーショントラフィックを認識し，各アプリケーションのメディアセッションごとに必要な帯域を自動で割り当てることが可能となります。
コンテンツ・アウェア・シェーピング機能の詳細については，「PureFlow GS1 トラフィックシェーパー PF7000A/PF7001A/PF7010A/PF7011A 取扱説明書 コンフィギュレーションガイド」の第 9 章「コンテンツ・アウェア・シェーピング機能」を参照してください。またライセンスを有効にする方法については，同第 4 章「4.6 ライセンスキー」を参照してください。

（4） GS1 ライセンスキー 2

3 階層帯域制御機能を有効にするライセンスです。3 階層帯域制御機能を有効にすることで，ポートの送出帯域，仮想パイプの最低帯域，最大帯域を制御することが可能となります。
ライセンスを有効にする方法については，同第 4 章「4.6 ライセンスキー」を参照してください。

（5） GS1 ライセンスキー 3

シナリオ拡張機能を有効にするライセンスです。シナリオ拡張機能を有効にすることで，仮想チャネルシナリオの個別キューモードで使用可能なキュー数が 4096 本に拡張されます。また，設定可能なシナリオ数の上限が拡張されます。仮想パイプシナリオと仮想チャネルシナリオを合わせ 4096 個までシナリオを登録することが可能になります。PF7010A と PF7011A にのみ適用が可能です。

1.3 各部の名称と機能

図 1.3-1 に装置正面図と各部の名称を示します。

ここでは, PF7011A(PureFlow GS1-GB)を示しています。
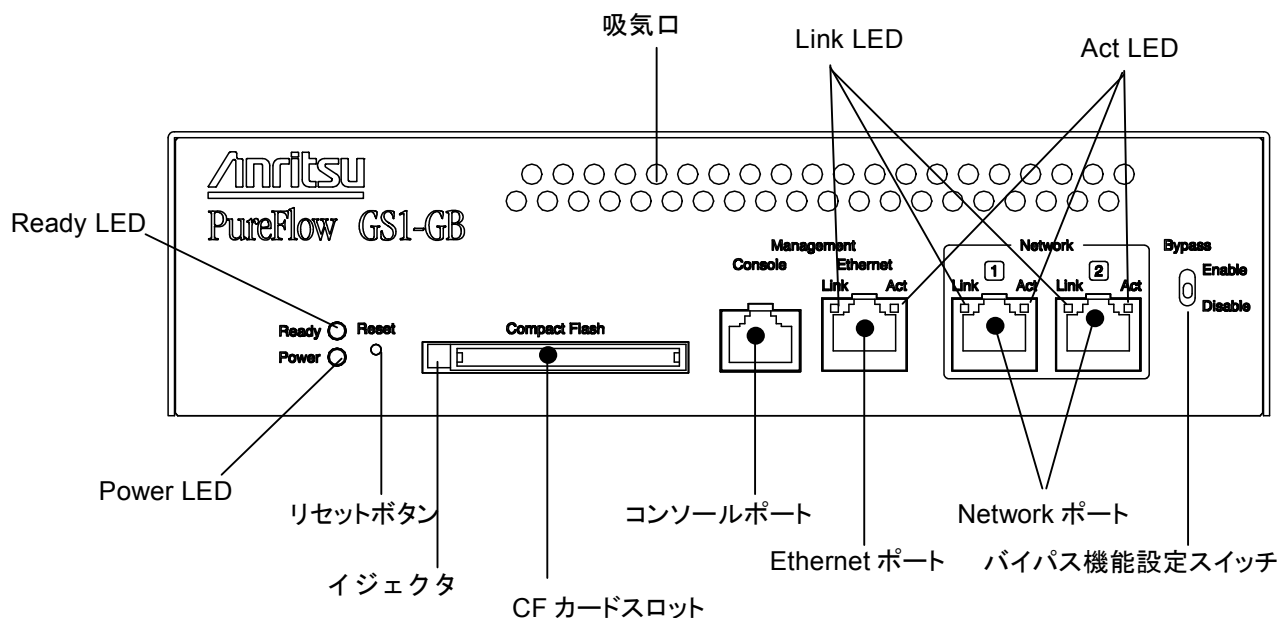
図 1.3-1　装置正面図と各部の名称

図 1.3-2 に装置背面図と各部の名称を示します。
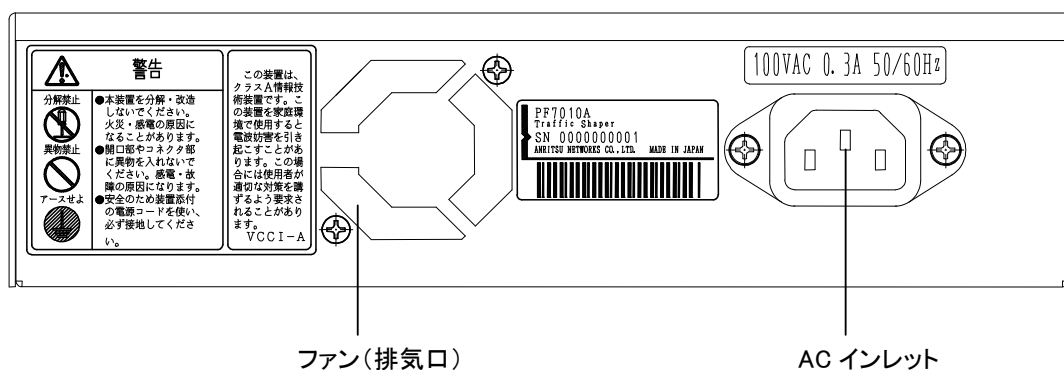
図 1.3-2　装置背面図と各部の名称

1.3.1 ポートの種類

本装置のポートの種類は次のとおりです。

(1) コンソールポート

本装置の動作パラメータを表示したり，装置の設定をするために使用します。詳しくは，「3.2 コンソールポート」を参照してください。

(2) Ethernet ポート

本装置のローカルポートであり，Network ポートとは切り離されています。このポートは，遠隔保守用インタフェースとして使用します。このポートは Auto-MDIX ポートで 10BASE-T，100BASE-TX をサポートします。このポートは，オートネゴシエーションのみのサポートとなります。

(3) Network ポート

トラフィックコントロールの対象となる回線を接続するポートです。Auto-MDIX ポートで，以下をサポートします。

・PureFlow GS1-F（PF7000A）／PureFlow GS1-FB（PF7001A）
10BASE-T，100BASE-TX をサポートします。

・PureFlow GS1-G（PF7010A）／PureFlow GS1-GB（PF7011A）
10BASE-T，100BASE-TX，1000BASE-T をサポートします。
1000 Mbit/s での通信については，オートネゴシエーション有効の場合のみサポートします。

また，PureFlowGS1-FB と PureFlowGS1-GB では，停電などで本装置に電源が供給されなくなった場合に Network ポート 1 と Network ポート 2 を直結可能です（バイパス機能）。

注1:

100BASE-TX で固定モード（オートネゴシエーション無効）の場合，この
ポートの送信，受信は表 1.3.1-1 となります。使用ケーブルに注意してくださ
い。この場合一般的には，サーバーや PC との接続にはクロスケーブルを，
スイッチなどとの接続にはストレートケーブルを使用することで通信ができま
す。
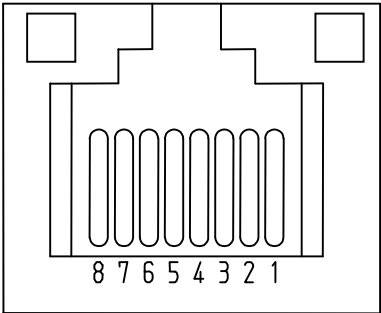
図 1.3.1-1　ネットワークポートのピン番号

表 1.3.1-1　固定モード時のピンの送受信

ピン番号	信号名
1	TX＋
2	TX－
3	RX＋
4	未使用
5	未使用
6	RX－
7	未使用
8	未使用

注1:

注2:

バイパス接続時のポート1とポート2の結線は表1.3.1-2となります。これは本装置がクロスケーブルと同等になることを表します。本装置に接続する装置がAuto MDI/MDI-X対応でない場合などには，本装置との接続に使用するケーブル（ストレートまたはクロス）に注意してください。バイパス接続時に対向装置同士でリンクしない場合があります。図1.3.1-2を参考にケーブルを選定してください。

表1.3.1-2 バイパス時の接続

Network ポート 1 のピン番号	接続	Network ポート 2 のピン番号
1		1
2		2
3		3
4		4
5		5
6		6
7		7
8		8
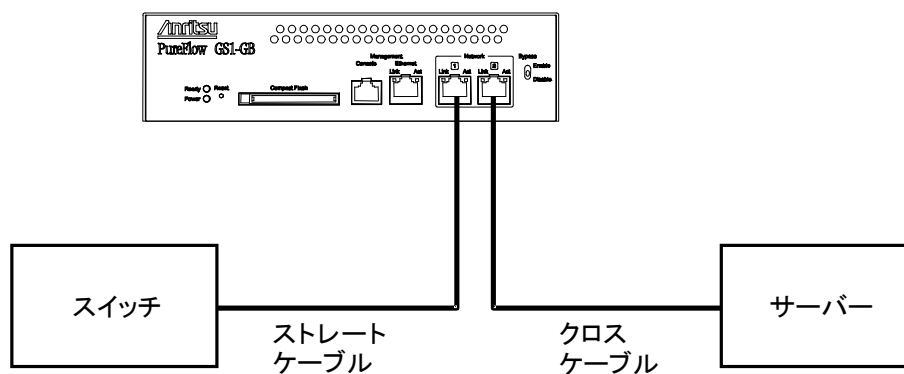
図1.3.1-2 使用ケーブルの例

※ 上図は Auto MDI/MDI-X 未対応の一般的なスイッチとサーバーの接続例を示します。

注3:

10 Mbit/s で接続する場合，対向装置がパケット送信状態であると，対向装置の種類によっては本装置がリンク状態になるまで時間がかかることがあります。しばらくしてもリンク状態にならない場合は，「PureFlow GS1 トラフィックシェーパー PF7000A/PF7001A/PF7010A/PF7011A 取扱説明書 コンフィギュレーションガイド」の第6章の（注4）を参照してください。

1.3.2 LED表示

（1） Power LED

本装置の電源供給を示します。本装置に電源が供給されたとき点灯します。
点灯色によって装置の起動状態を示します。

表示	機能
緑（点灯）	本装置に電源が供給され，装置内部のマイクロプロセッサが起動した状態であることを示します。
赤（点灯）	本装置に電源が供給され，装置内部のマイクロプロセッサが起動していない状態であることを示します。
消灯	本装置に電源が供給されていないことを示します。

（2） Ready LED

本装置全体の状態を表示します。

表示	機能
緑（1 秒点滅）	装置内部のマイクロプロセッサの起動中および自己診断中を示します。
緑（点灯）	装置が正常に動作していることを示します。
赤（点灯）	装置内部のマイクロプロセッサの起動前および，装置が動作不能であることを示します。
消灯	本装置に電源が供給されていないことを示します。

（3） Ethernet ポートの Link LED

Ethernet ポートのリンク状態を示します。

表示	機能
緑（点灯）	ポートがリンク状態であることを示します。
消灯	ポートに接続されたネットワーク機器とリンクしていない状態であることを示します。

（4） Ethernet ポートの Act LED

Ethernet ポートのパケット送受信状態を示します。

表示	機能
緑（点滅）	ポートがパケットを送受信している状態であることを示します。
消灯	ポートがパケットを送受信していない状態であることを示します。

（5） Network ポートの Link LED

Network ポートのリンク状態を示します。

表示	機能
緑（点灯）	PureFlow GS1-F／PureFlow GS1-FB： 100 Mbit/s の Full Duplex でのリンク状態であることを示します。 PureFlow GS1-G／PureFlow GS1-GB： 1000 Mbit/s のリンク状態であることを示します。
橙（点灯）	PureFlow GS1-F／PureFlow GS1-FB： 100 Mbit/s の Half Duplex または 10 Mbit/s でのリンク状態であることを示します。 PureFlow GS1-G／PureFlow GS1-GB： 100 Mbit/s または 10 Mbit/s でのリンク状態であることを示します。
消灯	ポートに接続されたネットワーク機器とリンクしていない状態であることを示します。

（6） Network ポートの Act LED

Network ポートのパケット送受信状態を示します。

表示	機能
緑（点滅）	ポートがパケットを送受信している状態であることを示します。
消灯	ポートがパケットを送受信していない状態であることを示します。

注：

PureFlow GS1-FB および PureFlow GS1-GB のバイパス接続状態では，Network ポートの Link LED, Act LED は消灯します。

1.3.3　リセットボタン

リセットボタンは本装置を再起動する場合に押します。

リセットボタンを押す場合，ボールペンなどの先で操作してください。シャープペンシルなどは，芯の先が装置内部に残ることがあるので使用しないでください。

1.3.4　CF（コンパクトフラッシュ）カードスロット

設定パラメータのダウンロード／アップロード，ソフトウェアのダウンロード／アップロード，ソフトウェアの実行などの保守（メンテナンス）時に使用します。詳細な使用方法については，付属のコンフィギュレーションガイドならびにコマンドリファレンスを参照してください。

CF カードは，当社動作保証品をご使用ください。ほかの CF カードは正常に動作しない場合があります。また，CF カードをフォーマットする際は，FAT16 または FAT12 フォーマットとしてください。

CF カードの挿入手順
（1）　CF キャップを取り外します。
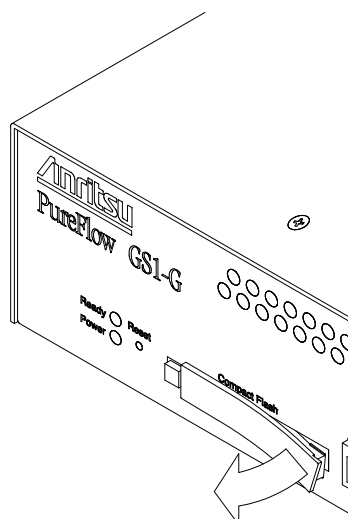
図 1.3.4-1　CF キャップの取り外し

（2）　イジェクタが飛び出すまで CF カードを奥に差し込みます。
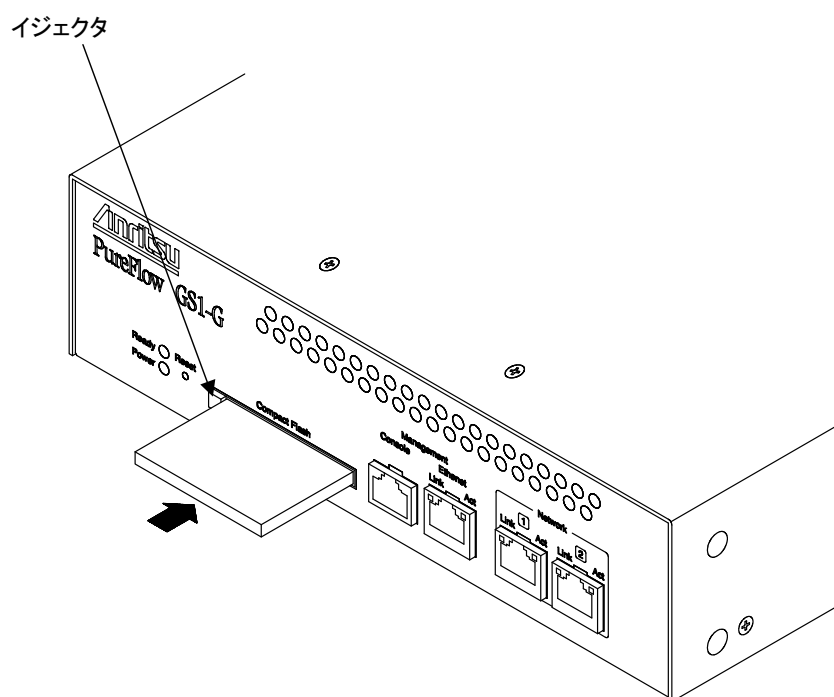
イジェクタ

図 1.3.4-2　CF カードの挿入

CF カード抜去手順

（1）　イジェクタを指で水平方向に押して CF カードを取り出します。
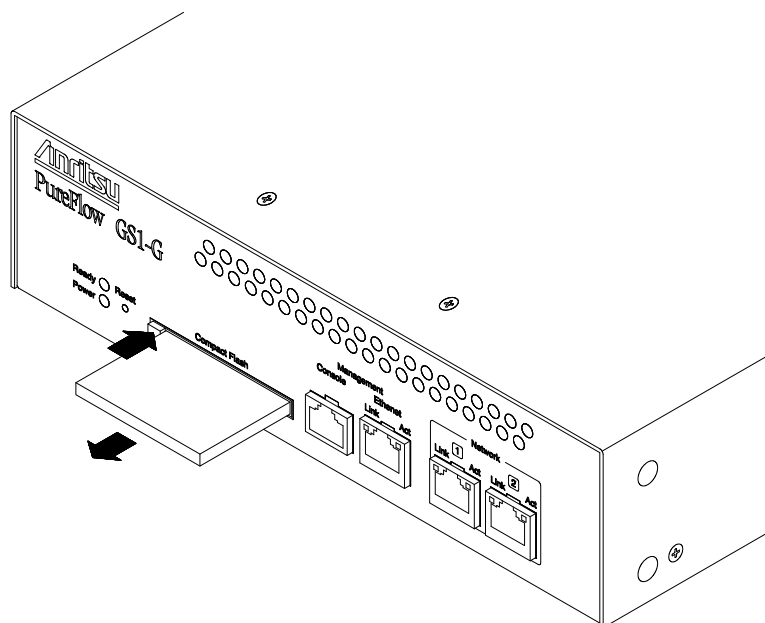
図 1.3.4-3　CF カードの取り出し

（2）　CF キャップを取り付けます。

CF キャップはこの
位置を右上にして
取付けて下さい
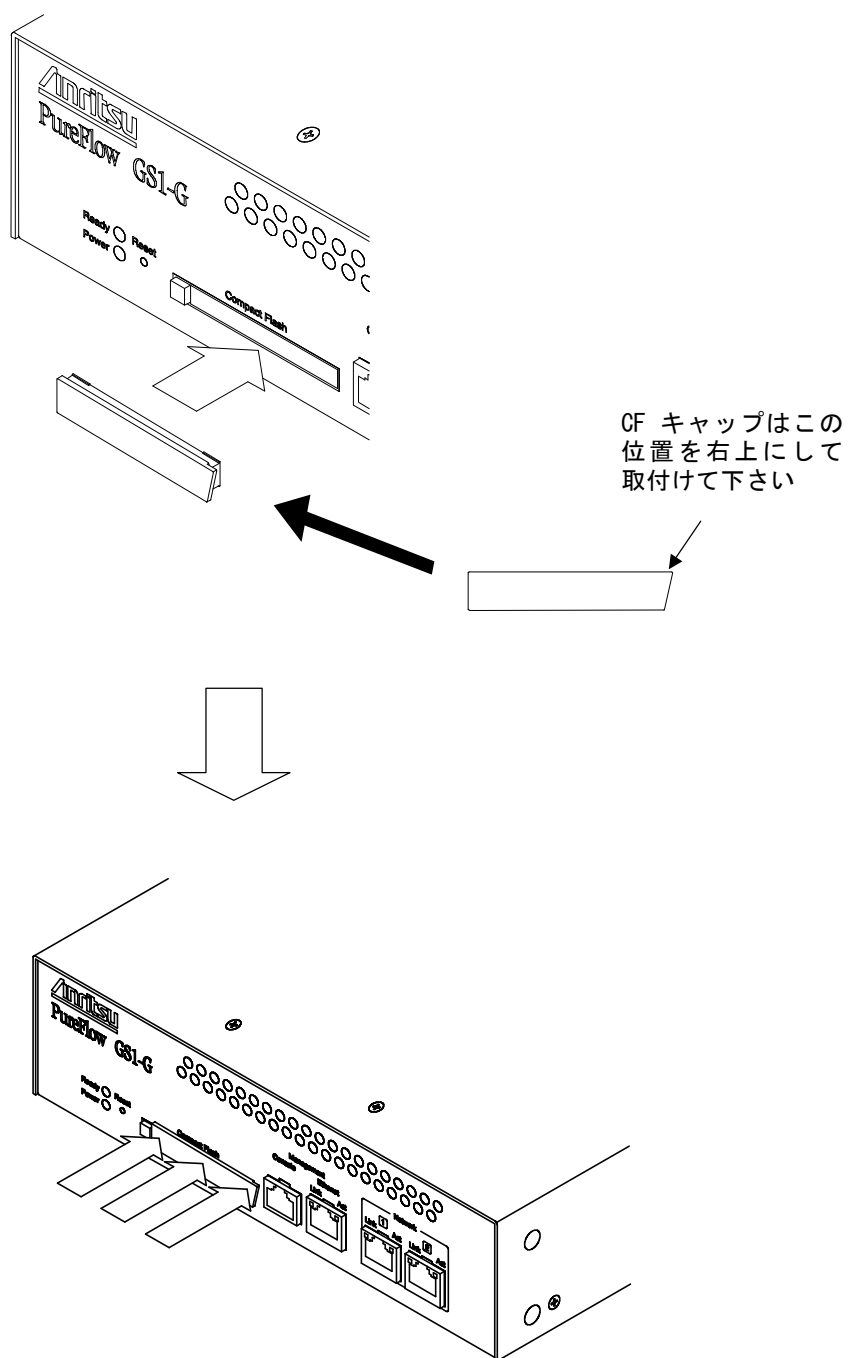
図 1.3.4-4　CF キャップの取り付け

⚠ 注意

1. CF カードはコマンドプロンプトが入力状態のときに抜き差ししてください。コマンドプロンプトが入力状態に戻る前には，CF カードに対しアクセスをしていますので，CF カードを抜いたり，電源をオフにすると，CF カードが破損する恐れがあります。

2. CF キャップは CF カードの抜去後，必ず取り付けてください。内部にゴミが混入し故障の原因となります。

3. CF カードの抜去は必ずイジェクタを押して取り出してください。CF カードを引っ張って引き抜くことは絶対におやめください。CF カードの故障の原因となります。

1.3.5 吸気口・排気口・ファン

装置内部のファンにより空気の吸排気を行い，本装置内部の放熱を行います。
放熱のために必要な本装置周辺の空きスペースについては 2.3 項を参照してください。

⚠ 注意

吸気口，排気口をふさがないでください。装置が加熱して故障や火災の原因となります。

1.3.6 バイパス機能設定スイッチ

PureFlow GS1-FB（PF7001A）および PureFlow GS1-GB（PF7011A）に実装されています。
停電などで本装置への電源供給がなくなった場合にバイパス接続への切り替えを行うか行わないかの設定を行います。
本スイッチを Enable にすると本装置への電源供給がなくなったときにバイパス接続に切り替わり，本装置に接続された装置同士が直結され通信が継続されます。
本スイッチを Disable にすると本装置への電源供給がなくなったときにバイパス接続に切り替わらず，本装置に接続された装置間の通信はできなくなります。
なお，本スイッチを切り替えただけでは，バイパス接続の切り替えは行なわれません。

本スイッチの操作時，シャープペンシルなどは芯の先が装置内部に残ることがあるので使用しないでください。

工場出荷時は Enable の状態となっています。

第2章　開梱と設置

ここでは，本装置の開梱と設置方法について説明します。

2

開梱と設置

2.1　梱包内容の確認

梱包箱から内容物を取り出し，次の物品が入っていることを確認してください。装置本体および CF キャップ以外はアクセサリー箱の中に入っています。不足品や輸送中に破損したものがある場合は，すみやかに購入先に連絡してください。

再輸送に備え，梱包箱などの梱包材料を保管しておいてください。

表 2.1-1　内容物一覧

品名	数量	備考
トラフィックシェーパー（装置本体）	1	
AC 電源ケーブル（100 V 用）	1	
コンソールケーブル	1	
PureFlow GS1 トラフィックシェーパー PF7000A/PF7001A/PF7010A/ PF7011A 取扱説明書 CD-ROM	1	CD-ROM（本書，コマンドリファレンス，コンフィギュレーションガイド）
CF キャップ	1	CF カードスロット用 本体に実装
ゴム足	4	
補足説明書	0 または 1	発行された場合

2.2 設置場所の選び方

本装置を設置するときは，以下のような場所を避けてください。

- ・ 傾いたところ
- ・ 不安定なところ
- ・ チリやゴミの多く発生するところ
- ・ 強い振動のあるところ
- ・ 強い電磁気の発生するところ
- ・ 直射日光の当たるところ
- ・ 極端に暑いところや寒いところ
- ・ 腐食性ガス，塩分の発生するところ
- ・ 有機溶剤のそば

2

開梱と設置

⚠ 警告

1. 本装置を上記のような場所に設置すると，転倒，落下，感電，および火災の危険があるほか，故障の原因となります。

2. 本装置を持ち運ぶ場合には，底面にしっかりと手を掛けて運んでください。装置底面以外を持つと装置が破損し，ケガの危険があります。

2.3　空きスペース

本装置の周りには放熱のために必ず図 2.3-1 に示すスペースを確保してください。
本装置は背面に冷却ファンを内蔵しています。ファンの風向きは排出です。
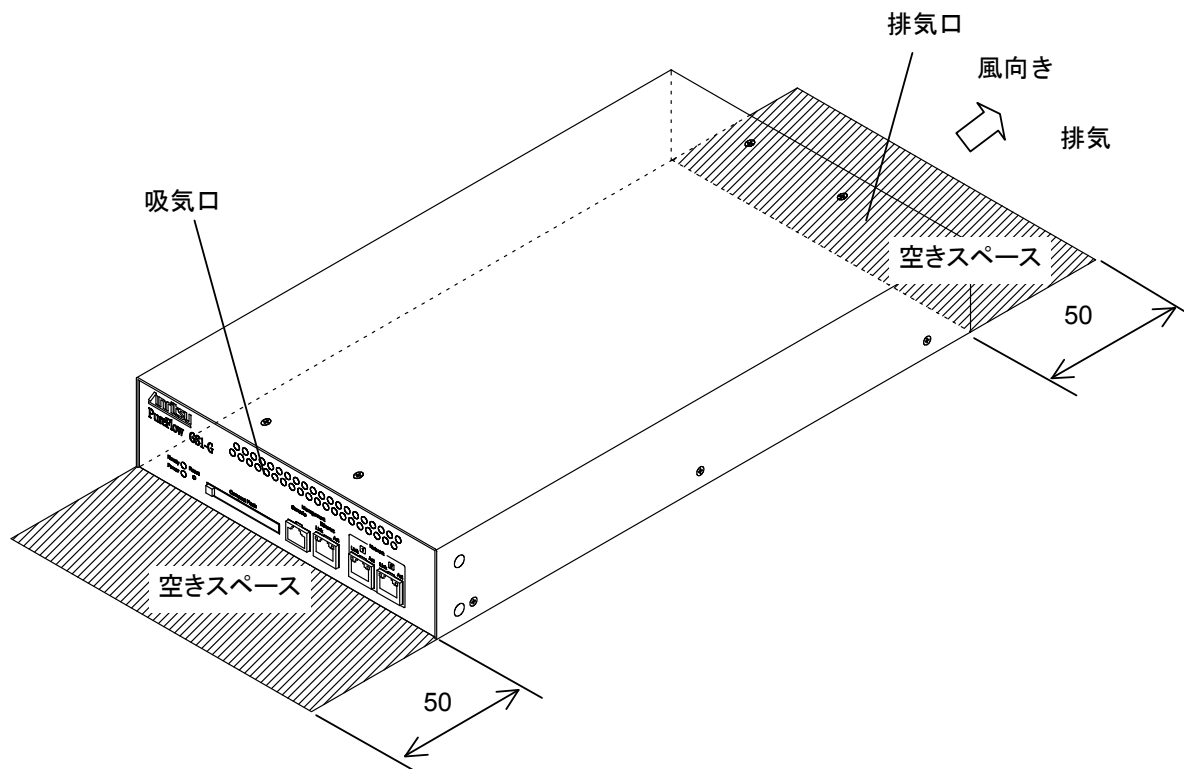
図 2.3-1　空きスペース

⚠ 注意

1. 本装置の周りに十分なスペースを設けないと，装置が過熱して
   故障の原因となります。必ず図 2.3-1 に示すスペースを確保し
   てください。特に吸気口，排気口をふさがないでください。また，
   本装置の上には物を載せないでください。

2. 本装置を縦置きにして使用しないでください。装置が過熱して
   故障する原因となります。必ず図 2.3-1 に示すように横置きで
   使用してください。

2.4　再輸送の場合

本装置を再輸送する場合は，納入時に使用されている梱包材に入れて輸送してください。

⚠ 注意

納入時に使用されている梱包材を使用しないで輸送すると，振動，衝撃などにより故障する可能性があります。

2.4.1　梱包方法
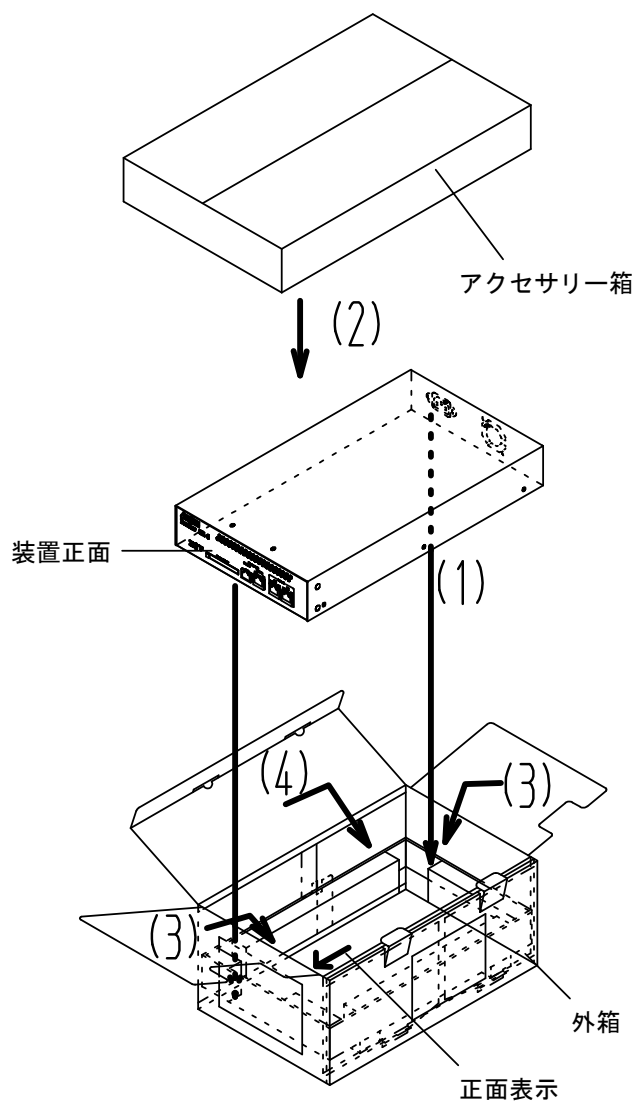
図 2.4.1-1　梱包方法

　（1）　装置正面を中箱の正面表示と一致する向きに合せて入れてください。

　（2）　その上にアクセサリー箱を載せてください。

　（3）　外箱の小さい方のふたを閉じてください。

　（4）　外箱の大きい方のふたを閉じてください。

2.5 日常点検

（1） Ready LED による装置異常に注意してください。

⚠ 注意

「Ready」LED において異常を表示している場合には，火傷，感電の恐れがあります。この場合はただちに電源を切り，「本製品についてのお問い合わせ窓口」に連絡してください。

（2） 本装置の周囲のほこりを清掃してください。

⚠ 注意

・ 電源コンセントに付着したほこりなどは，ときどき清掃してお使いください。ほこりが電極にたまると火災になる恐れがあります。

・ ファンの周りのほこりなどを清掃し，風穴をふさがないようにしてください。風穴をふさぐと，本装置内部の温度が上昇し，火災になる恐れがあります。

2

開梱と設置

2.6　ゴム足の付け方

本装置を卓上でご使用いただく場合に作業性を向上するため，添付するゴム足を取り付けることができます。ゴム足の取り付けは以下の手順に従ってください。

＜手順＞

（1）　装置底面部のゴム足取り付け部（図 2.6-1 ポンチ印部）の汚れを布などできれいにしてください。

ポンチ印（4 ヶ所）
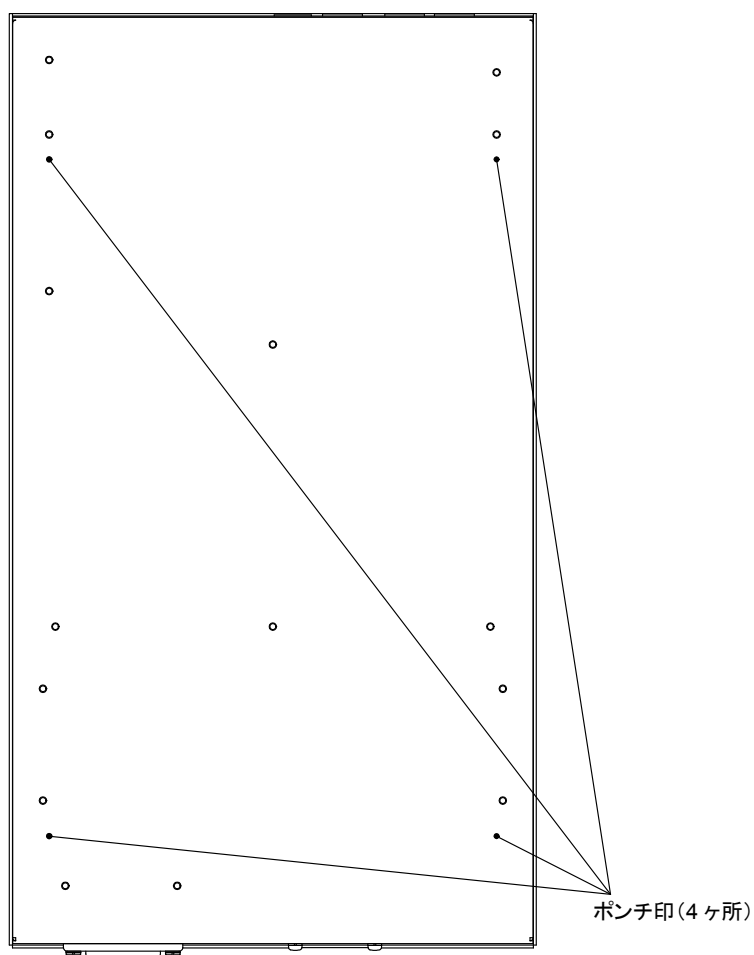
図 2.6-1　ゴム足用ポンチ印

（2）　添付するゴム足の接着剤保護用テープをはがし，図 2.6-2 のポンチ印部に
接着してください。
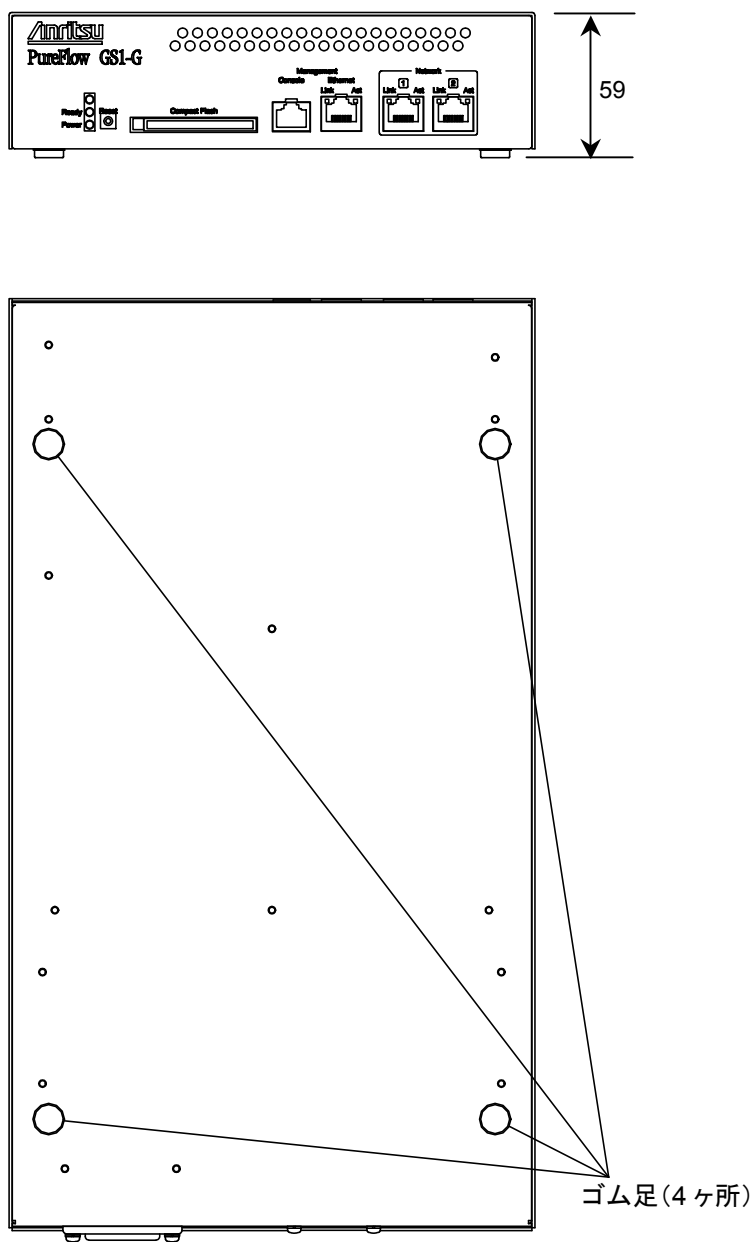
図 2.6-2　ゴム足接着

2.7　19 インチラックへの取り付け

⚠ 警告

ほかの装置と一緒に何台かの PureFlow GS1 をラックに実装する場合，その総合電流容量がラックに用意する電力回路，電線，過電流保護装置の容量を超えないようにしてください。電力回路に接続されるすべての装置の銘板に記載されている電流定格値を加算して，過負荷にならないように電力回路の電流容量を決めてください。PureFlow GS1 1 台の電流定格値は 0.3 A です。

添付の AC 電源ケーブルを使用して，PureFlow GS1 を電力回路に接続するときには，必ず適切な保護接地をしてください。主電源から PureFlow GS1 の AC 電源ケーブルまでは，切れ目のない確実な保護接地をしてください。

動作時の周囲温度が 40℃を超えるようなところには，PureFlow GS1 を実装しないでください。

PureFlow GS1 の正面から背面へのエアフローが阻害されないように注意してください（図 2.3-1 参照）。

指定のラックマウント金具および指定のねじ以外を使用した場合，または以下に示す取り付け手順に従わない場合は，装置がラックから外れてケガをする危険があります。また，装置故障の原因となります。

本装置は，オプションのラックマウントキットを使って 19 インチ標準ラック（以下，ラック）に取り付けることができます。ラックマウントキットの取り付け穴は IEC/EIA インチピッチに対応しています。

2.7.1　ラックマウントキットAによる取り付け

<手順>

（1）　ラックマウントアングルの取り付け

ラックマウントアングルを装置に取り付けてください。取り付けには，必ずキット内のなべ小ねじ M4（細い方のねじ）を使用してください。ラックマウントアングルには左用，右用がありますので注意して正しく取り付けてください。

なお，ラックマウントアングルには，ラック取り付け面と装置が同一面となる位置と，ラック取り付け面より装置が 30 mm 後ろになる位置に取り付け穴があいています。使用環境に応じて取り付け穴を選んでください。図 2.7.1-1 は，ラック取り付け面より装置が 30 mm 後ろになる取り付け方を示します。

また，ラックマウントアングルには，M3 のねじ穴が 4 箇所あります。ケーブルクランプの取り付けなどにご使用ください。耐荷重は 1 kg です。

2

開梱と設置

なべ小ねじ(M4)

ラックマウントアングル（左用）

ラックマウントアングル（右用）

M3 ねじ穴
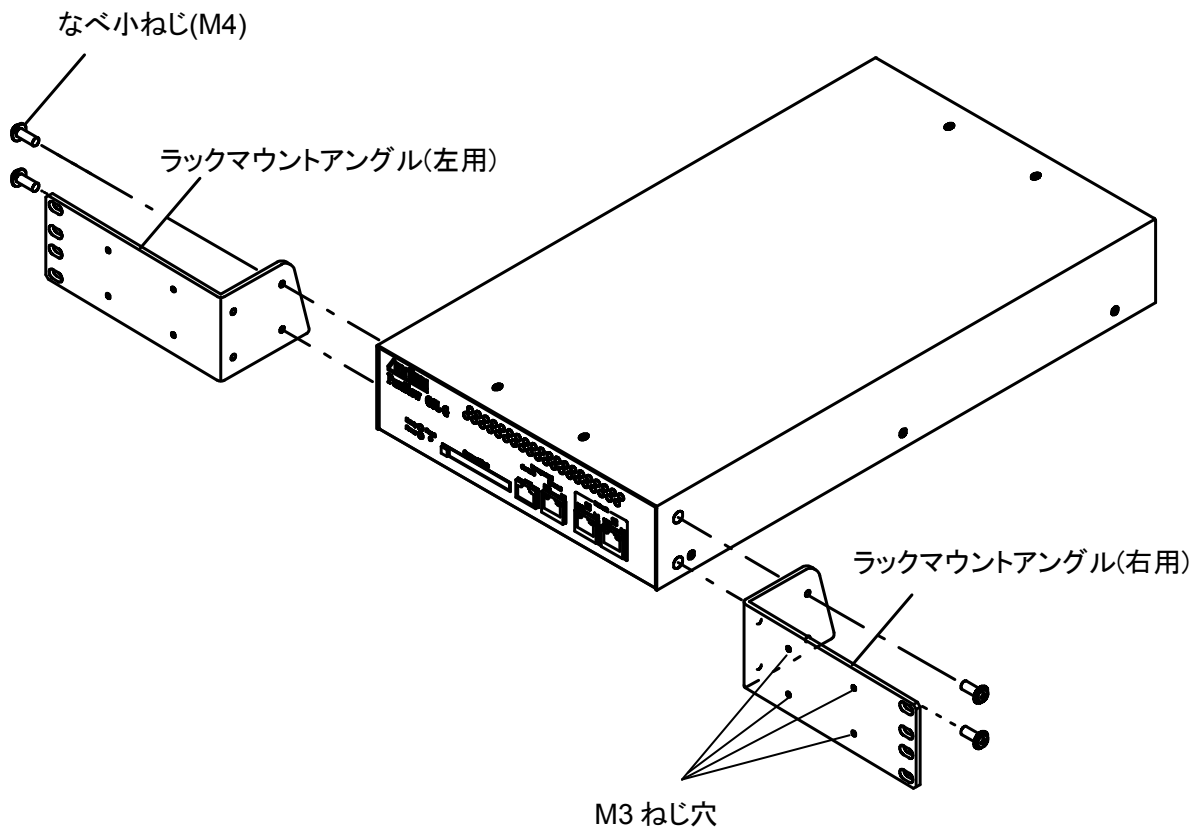
図 2.7.1-1　ラックマウントアングルの取り付け

（2）　装置の搭載と固定

装置をラックに搭載してください。ラックマウントアングルをラックに固定してください。固定には必ずキット内のなべ小ねじ　M5（太い方のねじ）か，または No.10-32UNF　ねじにバネ座金と平座金を組み合わせて使用してください。ラックにねじタップがないときは，M5　座金付きねじとナットを使用してください。No.10-32UNF　ねじとナットの組み合わせはねじ径が合わないのでおやめください。

なべ小ねじ(M5)

19 インチラック
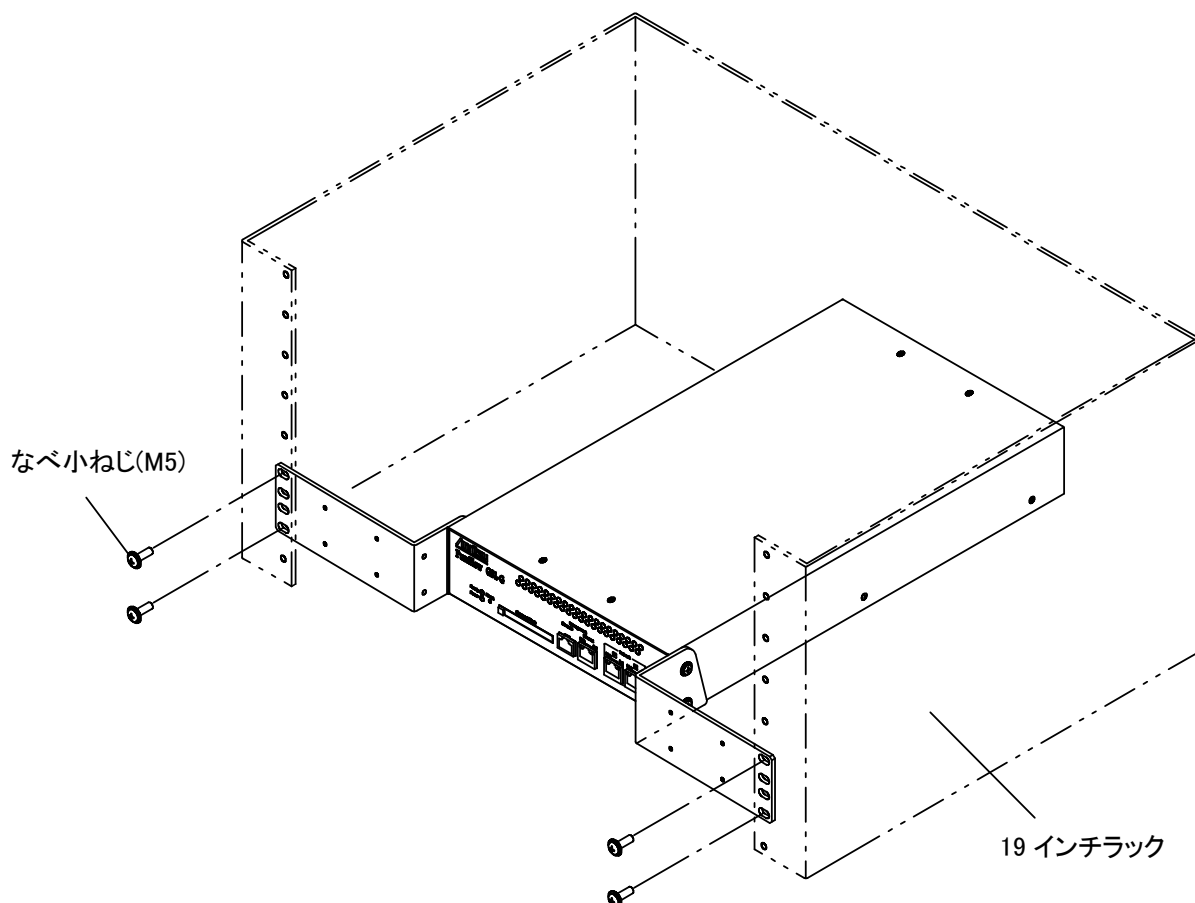
図 2.7.1-2　ラックへの装置搭載

⚠ 注意

本装置の前面および背面の凹凸部を持たないように注意してください。すべりやすいので装置を落下させけがをする恐れがあります。また，装置を破損する恐れがあります。

2.7.2　ラックマウントキットBによる取り付け

＜手順＞

（1）　ラックマウントトレーのラックへの取り付け

ラックマウントトレーをラックに取り付けてください。取り付けには，必ずキット内のなべ小ねじ M5（太い方のねじ）を，または No.10-32UNF ねじにバネ座金と平座金を組み合わせて使用してください。ラックにねじタップがないときは，M5 座金付きねじとナットを使用してください。No.10-32UNF ねじとナットの組み合わせはねじ径が合わないのでおやめください。

なお，ラックマウントキット B は PureFlow GS1 専用です。他の物を載せないでください。

なべ小ねじ(M5)

19 インチラック
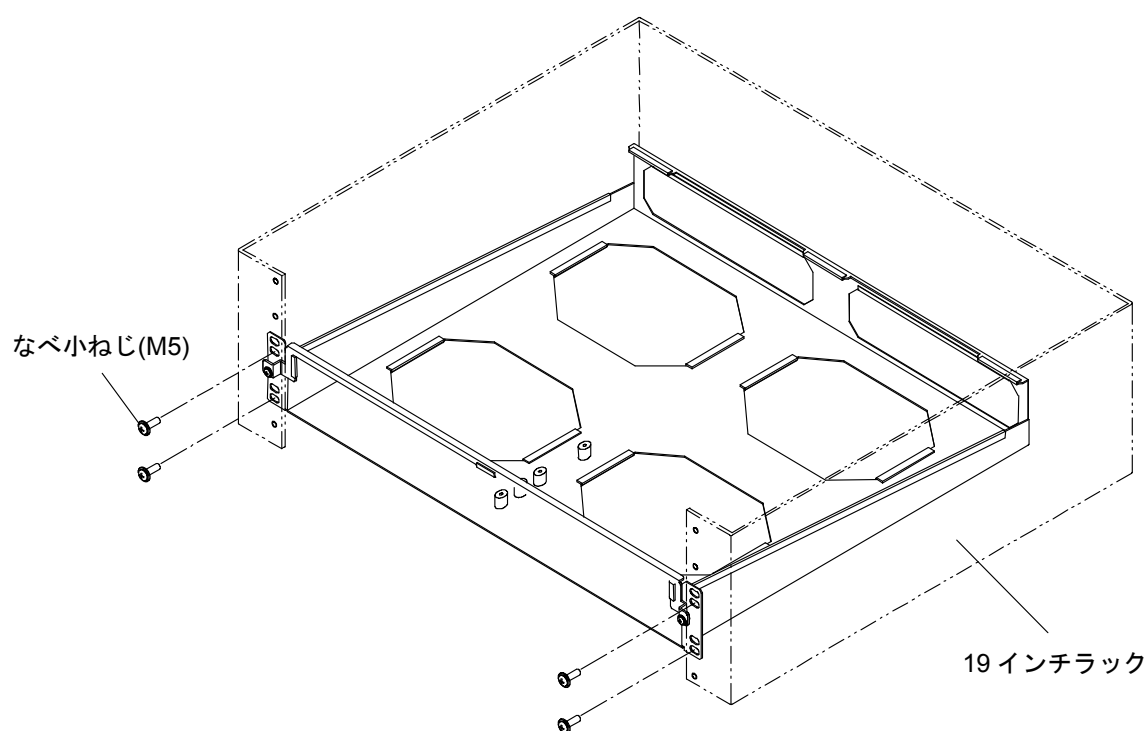
図 2.7.2-1　ラックマウントトレーの取り付け

（2） カバー押えの取り外し

ラックマウントトレーに取り付けられているカバー押えをねじを緩め少し上に持ち上げて取り外してください。

カバー押え

ねじを緩めてください。
（5 mm 程度，ねじが取れない
ように注意してください。）

図 2.7.2-2　カバー押えの取り外し

2

開梱と設置
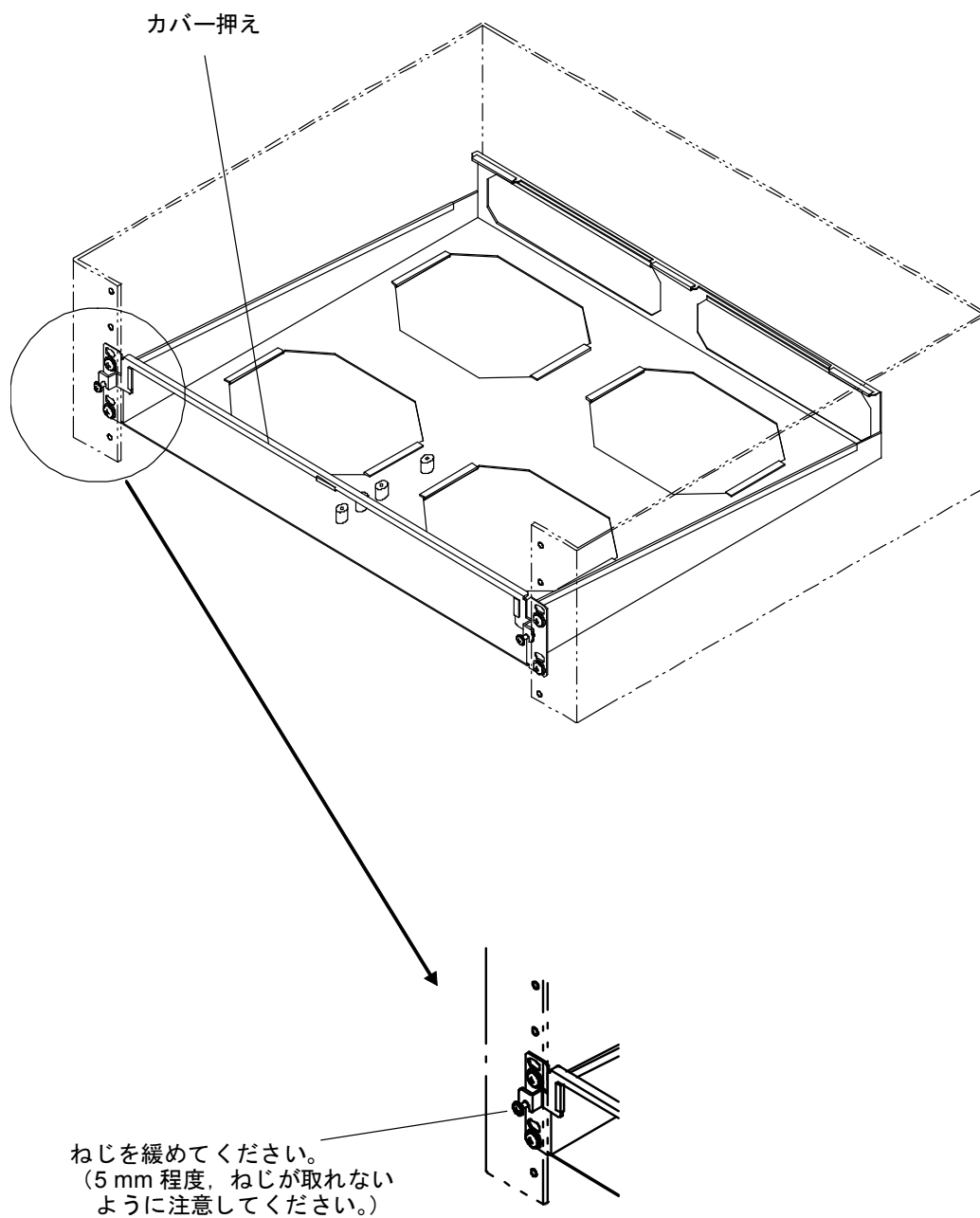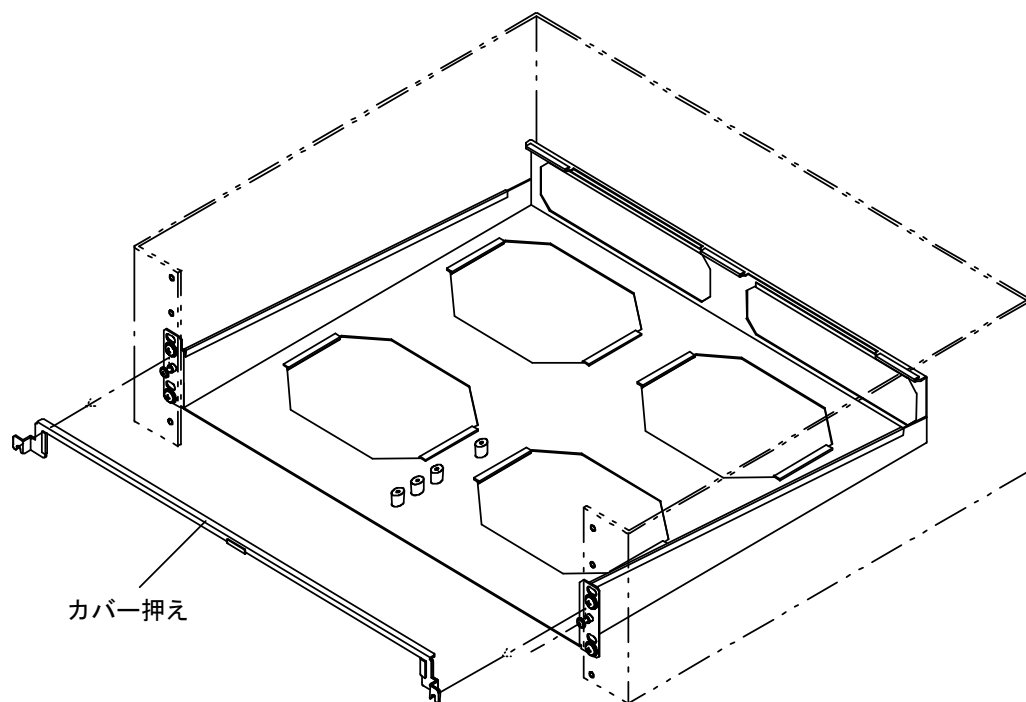
カバー押え

図 2.7.2-3　カバー押えの取り外し（つづき）

（3）　装置の搭載と固定

　　　装置をラックマウントトレーに載せガイドに沿ってゆっくりと止まるまで奥に押し込み，装置をカバー押えで止め，ねじを締めてください。

ガイド
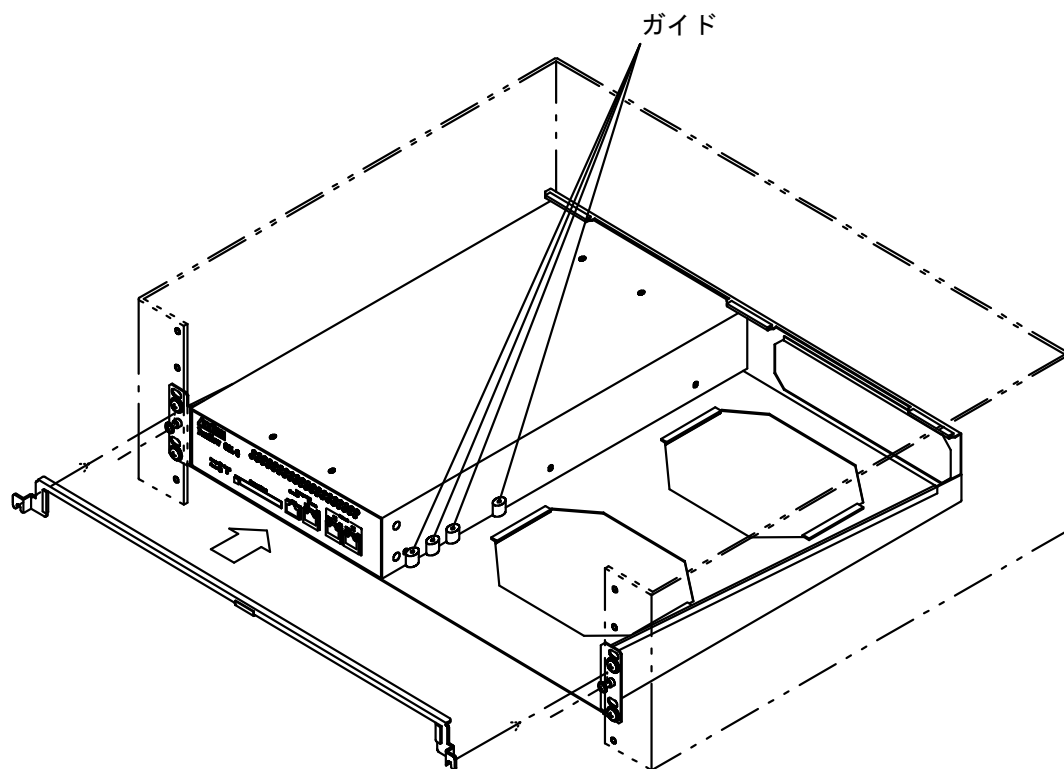
図 2.7.2-4　ラックへの装置搭載

2.8 UTP ケーブルの接続と取り外し

2.8.1 UTPケーブルの接続

UTP ケーブルを接続するポートに差し込んでください。
ケーブルのラッチがかかるまで押し込んでください。
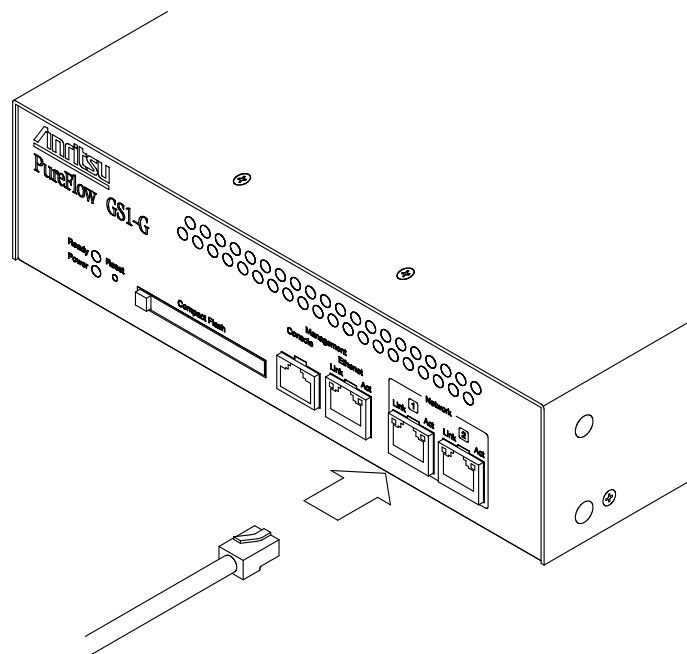
図 2.8.1-1　UTP ケーブルの差し込み

2.8.2　UTPケーブルの取り外し

UTP ケーブルのラッチを指で押し，ラッチを外し静かに取り外してください。
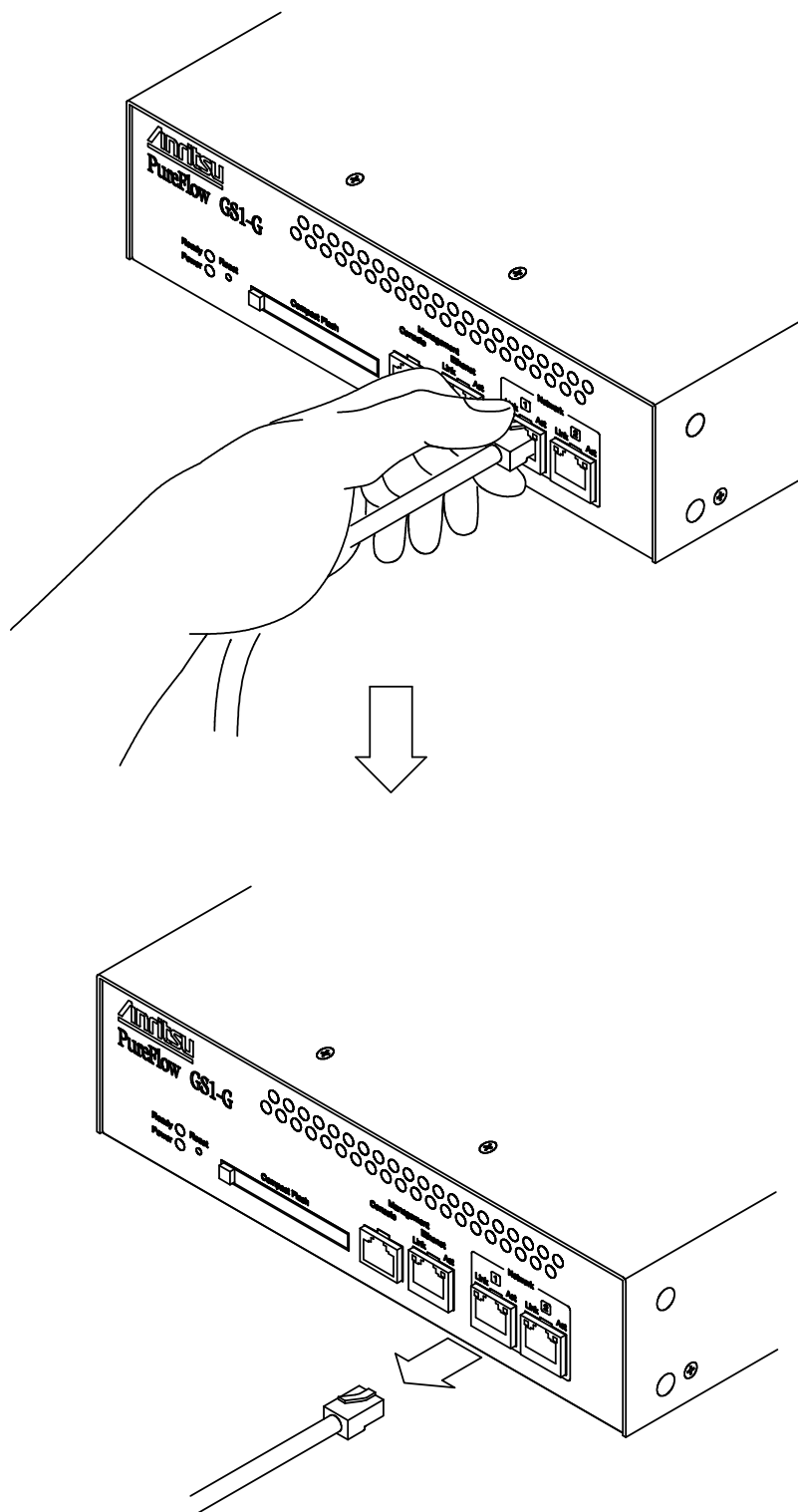
図 2.8.2-1　UTP ケーブルの取り外し

ここでは，本装置の電源の起動と設定について説明します。

3

起
動

ここでは，本装置の電源の起動と設定について説明します。

3.1　電源の供給

（1）　AC 電源ケーブルの接続

装置背面の AC インレットに AC 電源ケーブルのアウトレットを挿入してください。
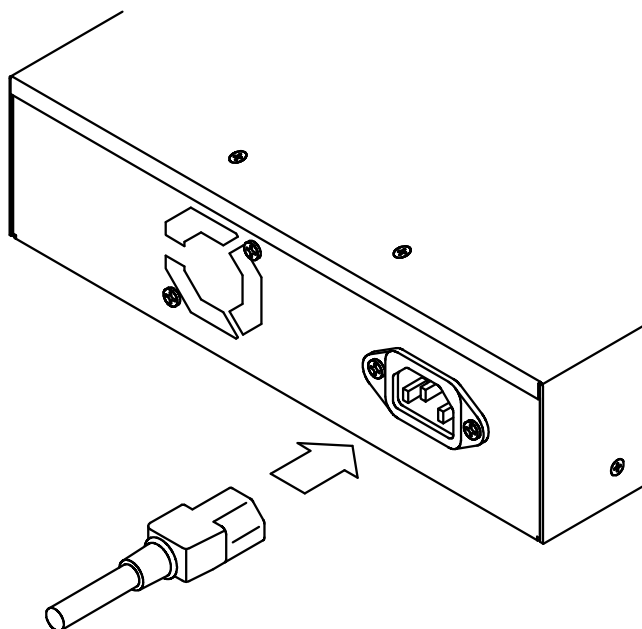
図 3.1-1　AC 電源ケーブルの接続

（2）　電源の投入

電源コードを主電源のコンセントに差し込むと装置に電源が供給されます。

⚠ 注意

本装置は，電源コードのプラグを抜くことにより電源を遮断するようになっています。
本装置は，容易に接近が可能なコンセントの近傍に設置してください。

3.2　コンソールポート

本装置には，装置の動作パラメータを表示したり，設定したりするためのマネジメントポートとしてコンソールポート(シリアルポート)と遠隔からもアクセスできるポートとして Ethernet ポート(100BASE-TX)の二つを持っています。

3.2.1　コンソールの接続

本装置は，コンソールを接続して装置の動作パラメータを表示したり，設定することができます。コンソールポートに端末を接続する場合は，付属のコンソールケーブル(RJ-45/DB-9 アダプタケーブル)を使用します。端末として PC を使用する場合は VT100 端末エミュレーションをサポートしている必要があります。端末エミュレーションソフトウェアによって，本装置と PC の通信が可能になります。

コンソールに要求される条件は次のとおりです。

通信方式　　　　:調歩同期
通信速度　　　　:9600 ビット／秒
キャラクタ長　　:8 ビット
ストップ長　　　:1 ビット
フロー制御　　　:なし

コンソールポートと Ethernet ポートおよび Network ポートのコネクタ形状は同じです。コンソールポートに誤ってネットワークケーブルを接続しないよう注意してください。誤って接続すると誤動作する恐れがあります。

3

起
動

＜手順＞

（1） コンソールポートに付属のコンソールケーブルの RJ-45 側を接続します。
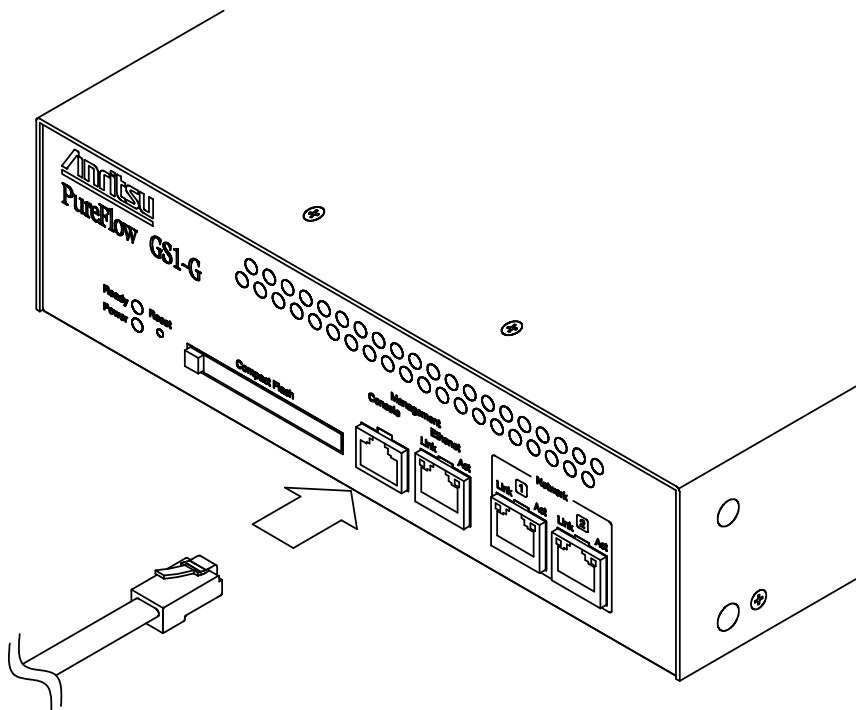
図 3.2.1-1　コンソールケーブルの接続（装置側）

（2） コンソールケーブルの Dsub9 側を端末に接続します。
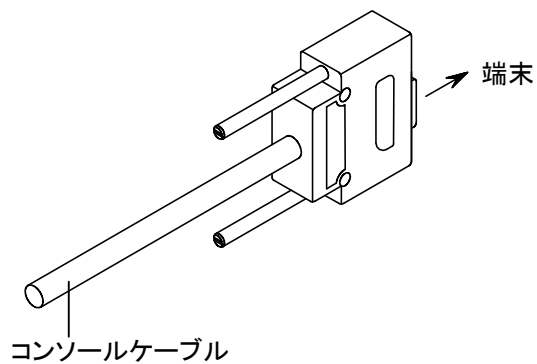
図 3.2.1-2　コンソールケーブルの接続（端末側）

（3） 端末を使用して端末エミュレーションプログラムを起動します。

3.3 起動と設定

本装置の起動，設定および各コマンドの詳細については，「PureFlow GS1 トラフィックシェーパー PF7000A/PF7001A/PF7010A/PF7011A 取扱説明書コンフィギュレーションガイド」および「PureFlow GS1 トラフィックシェーパー PF7000A/PF7001A/PF7010A/PF7011A 取扱説明書コマンドリファレンス」を参照してください。

3

起
動

第4章　電源の切断

ここでは，本装置の電源の切断について説明します。

4

電源の切断

4.1　AC 電源の切断

本装置から電源を完全に切断する場合は, AC 電源ケーブルのプラグから主電源
のコンセントを抜くか, またはアウトレットを AC インレットから抜いてください。
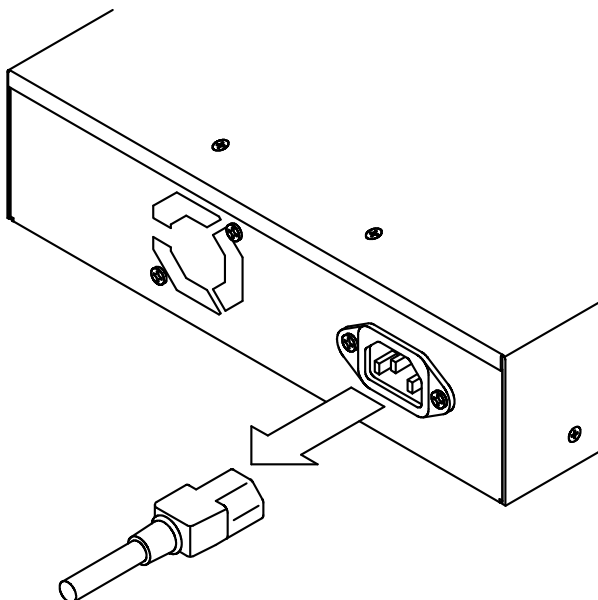
図 4.1-1　電源ケーブル取り外し

電源切断後, 電源を再投入する場合は, 10 秒以上待ってから投入してください。
電源切断後すぐに電源を再投入すると正常に起動しない場合があります。

付録A　入出力インタフェース仕様

付録

入出力インタフェース仕様

A.1　コンソールポート

A-2

（1）　コネクタ：8pin Modular Connector
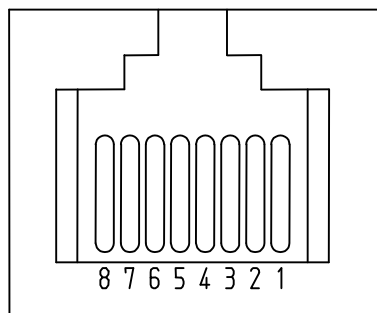
＊装置正面コンソールポート嵌合面から見た図

図 A.1-1　ピン配置

ピン番号	信号名
1	RS（送信要求）
2	ER（データ端末レディ）
3	SD（送信データ）
4	GND
5	GND
6	RD（受信データ）
7	DR（データセットレディ）
8	CD（データチャネル受信キャリア検出）

（2）　コンソールケーブル（Dsub9 側）
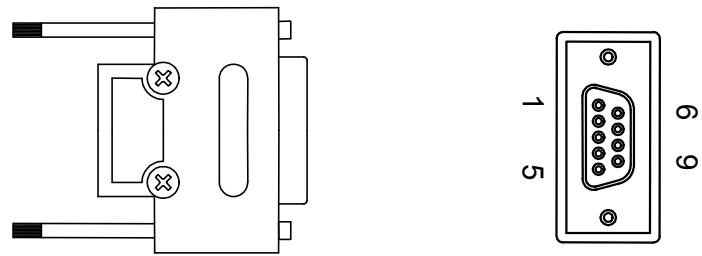
図 A.1-2　コンソールケーブル

RJ45 側（ピン配置は図 A.1-1 参照）	Dsub9 側
1	8
2	6
3	2
4	5
5	5
6	3
7	4
8	7

＊Dsub9 Female 側 1, 9 番ピンは NC

付録

入出力インタフェース仕様

A.2　Ethernet ポート

（1）　コネクタ
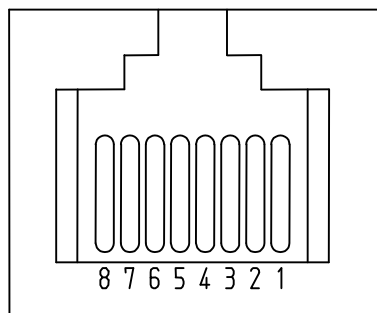
＊嵌合面から見た図

図 A.2-1　ピン配置

ピン番号	信号名
1	TX＋/RX＋
2	TX－/RX－
3	RX＋/TX＋
4	注 1
5	注 1
6	RX－/TX－
7	注 1
8	注 1

注：

4，5 番ピン，7，8 番ピンは内部で導通し，75 Ωで終端されています。

（2）　ネットワークケーブル

ネットワークケーブルとコネクタは下記仕様を満足するものをご使用ください。

- ケーブルの種類 ：4UTP（4Pair Unshielded Twist Pair）
- ケーブルの規格 ：ISO 11801 100 Ω Balance Cable
- カテゴリ 　　　：CAT5
- コネクタ 　　　：8pin Modular Connector
- コネクタ規格 　：ISO8877

A.3 Network ポート

（1）コネクタ
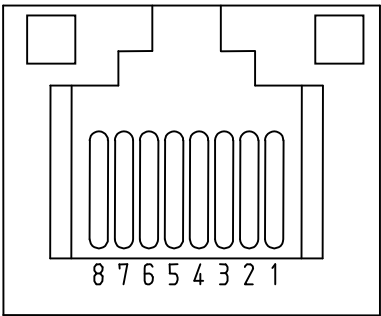
＊嵌合面から見た図

図 A.3-1　ピン配置

ピン番号	信号名	
	1000BASE-T	100BASE-TX
1	TP1＋	TX＋/RX＋
2	TP1－	TX－/RX－
3	TP0＋	RX＋/TX＋
4	TP3＋	―
5	TP3－	―
6	TP0－	RX－/TX－
7	TP2＋	―
8	TP2－	―

（2）ネットワークケーブル

ネットワークケーブルとコネクタは下記仕様を満足するものをご使用ください。

- ・ ケーブルの種類 ： 4UTP（4-Pair Unshielded Twist Pair）
- ・ ケーブルの規格 ： ISO 11801 100 Ω balanced Cable
- ・ カテゴリ ： 100BASE-TX ；CAT5
  1000BASE-T ；CAT5E あるいは CAT6
  （レベル遠端漏話減衰量の規格を追加したもの）
  （最大ケーブル長：100 m ただしバイパス接続時は
  ポート 1 とポート 2 のケーブル長合計で 60 m）
- ・ コネクタ ： 8pin Modular Connector
- ・ コネクタ規格 ： ISO 8877

注：

1. CAT5 のネットワークケーブルを使用した場合ケーブルの品質により，最大ケーブル長が短くなり通信できない場合があります。

2. 1000 Mbit/s の場合，Half Duplex はサポートしません。

3. 1000 Mbit/s 通信は Autonegotiation Enable で使用してください。

4. Speed，Duplex を固定設定とした場合，対向装置と本装置の設定を同一にしてください。

5. 10 Mbit/s で接続する場合，対向装置がパケット送信状態であると，対向装置の種類によっては本装置がリンク状態になるまで時間がかかることがあります。しばらくしてもリンク状態にならない場合は，「PureFlow GS1 トラフィックシェーパー PF7000A/PF7001A/ PF7010A/PF7011A 取扱説明書 コンフィギュレーションガイド」の第 6 章の(注 4)を参照してください。

注：

付録

装置仕様

B.1 機能

表 B.1-1　機能一覧

	機能項目		PureFlow GS1-F (PF7000A) GS1-FB(PF7001A)	PureFlow GS1-G (PF7010A) GS1-GB(PF7011A)	PureFlow GS1-GR (NF7010A) GS1-GBR(NF7011A)
1	制御可能帯域幅		10 kbit/s から 100 Mbit/s	10 kbit/s から 1,000 Mbit/s	
2	最大 Virtual Pipe 数		512	1,024/4,096*1	
3	最大 Virtual Channel 数		512	1,024/4,096*1	
4	最大セッション数		128,000	256,000	
5	インタフェース	Network ポート	100BASE-TX×2	1000BASE-T×2	
		Ethernet ポート	100BASE-TX×1		
		コンソールポート	RS-232C（RJ45）		
6	ポリシー制御		Vitual Pipe/Virtual Channel による 2 階層		
			Port/Vitual Pipe/Virtual Channel による 3 階層（オプション）*2		
7	QoS 設定		最大, 最小レート, 9 段階の優先度, バッファ量		
8	フォワーディング性能		100 Mbit/s×2 /298 kpps	1,000 Mbit/s×2 /300 kpps	
9	フロー識別	L2	VLAN ID, CoS		
		L3	IPv4, IPv6 （IP アドレス, IP アドレスマスク, ToS, IP プロトコル）		
		L4	TCP/UDP ポート番号		
		L7	H.323, SIP, FTP（オプション）*3		
10	フィルタ	親フィルタ	Virtual Pipe のトラフィックを分類する機能 4,096 フィルタ		
		子フィルタ	Virtual Channel のトラフィックを分類する機能 4,096 フィルタ		
		フィルタ サブルール	フィルタに OR 条件のトラフィック分類ルールを追加する機能		
		ルールリスト	無し	複数の分類ルールをリスト化し, リスト名でフィルタに設定する機能	
11	コンテンツ・アウェア・シェーピング機能*3	アプリケーション解析	H.323, SIP, FTP		
		アプリケーション セッション解析数	4,096	8,192	
		アプリケーション シナリオ	アプリケーション解析の結果に応じて動的に帯域を制御		

表 B.1-1　機能一覧（続き）

	機能項目	PureFlow GS1-F　(PF7000A) GS1-FB(PF7001A)	PureFlow GS1-G　(PF7010A) GS1-GB(PF7011A)	PureFlow GS1-GR　(NF7010A) GS1-GBR(NF7011A)
12	トップカウンタ機能	トラフィックを IP アドレスや TCP/UDP ポート番号ごとに分類し， 一定期間ごとに流量が多い通信を表示する機能		
13	システムインタフェースフィルタ	装置へのアクセス規制		
14	ネットワーク管理	Telnet, SSH, SNMP, Syslog, RADIUS, SNTP		
15	プローブエージェント機能[*4]	モニタリングマネージャ使用時に必要		
16	Web による監視機能	トラフィックモニタ, システムログ表示		
17	リンクダウン転送機能	経路異常を転送		
18	バイパス制御機能	装置動作中のバイパス状態を制御 GS1-FB(PF7001A) / GS1-GB(PF7011A) / S1-GBR(NF7011A) のみ対応		
19	電源冗長機能	無し	無し	電源モジュールの 冗長化

＊1：　本機能を使用するにはオプションの「GS1 ライセンスキー3」（PU700306A）
を購入していただく必要があります。

＊2：　本機能を使用するにはオプションの「GS1 ライセンスキー2」（PU700305A）
を購入していただく必要があります。

＊3：　本機能を使用するにはオプションの「GS1 ライセンスキー1」（PU700301A）
を購入していただく必要があります。

＊4：　本機能を使用するにはオプションの「プローブエージェント」（PU700304A）
を購入していただく必要があります。
なお，本機能は，別売ソフトウェア「モニタリングマネージャ」（PX700003A）
を使用する際に必要となります。

付録

装置仕様

B.2　外形, 質量

B-4

- ・　外形　　　　55（H）, 212（W）, 375.5（D）mm
- ・　質量　　　　2 kg 以下

B.3 電源

- 電圧　　　　　　100 Vac（90〜110 V）
- 電流　　　　　　0.3 A（at 100 V）
- 消費電力　　　　30 VA 以下
- 周波数　　　　　50/60 Hz±1 Hz
- 受電方式　　　　単相 2 線式, 1 接地線
- 瞬断　　　　　　100%, 1 サイクル
- 突入電流　　　　20 A$_{0-Peak}$ 以下（at 100 V）
- 漏洩電流　　　　0.8 mA 以下（at 100 V　AC）
- 装置発熱量　　　30 W・s（26 kcal）

付録

装置仕様

B.4　環境

- 動作温度　　　0 から 40℃
- 動作湿度　　　20 から 80％（結露なきこと）
- 保存温度　　　－20 から 60℃
- 保存湿度　　　10 から 90％（結露なきこと）
- 動作振動　　　0.5G　5 から 100Hz　X/Y/Z 各 60 分（ISO4180, JISZ0020）
- 梱包振動　　　0.75G　5 から 100Hz　X/Y/Z 各 60 分
- 寿命

　　MTBF　　PureFlow GS1-F, PureFlow GS1-G　　　　130,000 H

　　　　　　　PureFlow GS1-FB, PureFlow GS1-GB　　125,000 H

　　寿命部品

　　　　メモリバックアップ用電池　　　　　　　8.0 年
　　　　ファン　　　　　動作温度　30℃　7.0 年
　　　　　　　　　　　　動作温度　40℃　6.0 年
　　　　AC 電源　　　　動作温度　30℃　10.0 年
　　　　　　　　　　　　動作温度　40℃　5.0 年

B.5 妨害波規格

- ・ VCCI　　　　　*クラス* A
- ・ 高調波電流　　　JIS C 61000-3-2

付録

装置仕様

付録C　第三者ソフトウェアライセンス

付録

第三者ソフトウェアライセンス

C.1　jfreechart.jar

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.

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.

one line to give the library's name and an idea of what it does.
Copyright (C) year   name of author

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!

C.2 jcommon.jar

<div align="center">

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.］

</div>

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

付録

第三者ソフトウェアライセンス

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.

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.

付録

第三者ソフトウェアライセンス

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

付録

第三者ソフトウェアライセンス

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.

one line to give the library's name and an idea of what it does.

Copyright (C) year   name of author

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!

付録

第三者ソフトウェアライセンス

C.3 commons-logging.jar

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.

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.

one line to give the library's name and an idea of what it does.

Copyright (C) year　name of author

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!

C.4 commons-net.jar

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

付録

第三者ソフトウェアライセンス

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.

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.

付録

第三者ソフトウェアライセンス

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

付録

第三者ソフトウェアライセンス

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.

one line to give the library's name and an idea of what it does.

Copyright (C) year   name of author

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!

C.5　openssl-0.9.8e

LICENSE ISSUES

==============

The OpenSSL toolkit stays under a dual license, i.e. both the conditions of

the OpenSSL License and the original SSLeay license apply to the toolkit.

See below for the actual license texts. Actually both licenses are BSD-style

Open Source licenses. In case of any license issues related to OpenSSL

please contact openssl-core@openssl.org.

OpenSSL License

```
/* ====================================================================
 * Copyright (c) 1998-2007 The OpenSSL Project.   All rights reserved.
 *
 * Redistribution and use in source and binary forms, with or without
 * modification, are permitted provided that the following conditions
 * are met:
 * 1. Redistributions of source code must retain the above copyright
 *    notice, this list of conditions and the following disclaimer.
 * 2. Redistributions in binary form must reproduce the above copyright
 *    notice, this list of conditions and the following disclaimer in
 *    the documentation and/or other materials provided with the
 *    distribution.
 * 3. All advertising materials mentioning features or use of this
 *    software must display the following acknowledgment:
 *    "This product includes software developed by the OpenSSL Project
 *    for use in the OpenSSL Toolkit. (http://www.openssl.org/)"
 * 4. The names "OpenSSL Toolkit" and "OpenSSL Project" must not be used to
 *    endorse or promote products derived from this software without
 *    prior written permission. For written permission, please contact
 *    openssl-core@openssl.org.
 * 5. Products derived from this software may not be called "OpenSSL"
 *    nor may "OpenSSL" appear in their names without prior written
 *    permission of the OpenSSL Project.
 * 6. Redistributions of any form whatsoever must retain the following
 *    acknowledgment:
 *    "This product includes software developed by the OpenSSL Project
 *    for use in the OpenSSL Toolkit (http://www.openssl.org/)"
 *
 * THIS SOFTWARE IS PROVIDED BY THE OpenSSL PROJECT ``AS IS'' AND ANY
 * EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE
 * IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR
 * PURPOSE ARE DISCLAIMED.   IN NO EVENT SHALL THE OpenSSL PROJECT OR
```

```
* ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL,
* SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT
* NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES;
* LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)
* HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT,
* STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE)
* ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED
* OF THE POSSIBILITY OF SUCH DAMAGE.
* ====================================================================
*
* This product includes cryptographic software written by Eric Young
* (eay@cryptsoft.com).   This product includes software written by Tim
* Hudson (tjh@cryptsoft.com).
*
*/


Original SSLeay License
----------------------

/* Copyright (C) 1995-1998 Eric Young (eay@cryptsoft.com)
 * All rights reserved.
 *
 * This package is an SSL implementation written
 * by Eric Young (eay@cryptsoft.com).
 * The implementation was written so as to conform with Netscapes SSL.
 *
 * This library is free for commercial and non-commercial use as long as
 * the following conditions are aheared to.   The following conditions
 * apply to all code found in this distribution, be it the RC4, RSA,
 * lhash, DES, etc., code; not just the SSL code.   The SSL documentation
 * included with this distribution is covered by the same copyright terms
 * except that the holder is Tim Hudson (tjh@cryptsoft.com).
 *
 * Copyright remains Eric Young's, and as such any Copyright notices in
 * the code are not to be removed.
 * If this package is used in a product, Eric Young should be given attribution
 * as the author of the parts of the library used.
 * This can be in the form of a textual message at program startup or
 * in documentation (online or textual) provided with the package.
 *
 * Redistribution and use in source and binary forms, with or without
 * modification, are permitted provided that the following conditions
 * are met:
 * 1. Redistributions of source code must retain the copyright
 *    notice, this list of conditions and the following disclaimer.
 * 2. Redistributions in binary form must reproduce the above copyright
 *    notice, this list of conditions and the following disclaimer in the
```

```
*       documentation and/or other materials provided with the distribution.
* 3.  All advertising materials mentioning features or use of this software
*       must display the following acknowledgement:
*       "This product includes cryptographic software written by
*       Eric Young (eay@cryptsoft.com)"
*       The word 'cryptographic' can be left out if the rouines from the library
*       being used are not cryptographic related :-).
* 4.  If you include any Windows specific code (or a derivative thereof) from
*       the apps directory (application code) you must include an acknowledgement:
*       "This product includes software written by Tim Hudson (tjh@cryptsoft.com)"
*
* THIS SOFTWARE IS PROVIDED BY ERIC YOUNG ``AS IS'' AND
* ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE
* IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE
* ARE DISCLAIMED.   IN NO EVENT SHALL THE AUTHOR OR CONTRIBUTORS BE LIABLE
* FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL
* DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
* OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)
* HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT
* LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY
* OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF
* SUCH DAMAGE.
*
* The licence and distribution terms for any publically available version or
* derivative of this code cannot be changed.   i.e. this code cannot simply be
* copied and put under another distribution licence
* [including the GNU Public Licence.]
*/
```

C.6 openssh-4.7p1

This file is part of the OpenSSH software.

The licences which components of this software fall under are as
follows.   First, we will summarize and say that all components
are under a BSD licence, or a licence more free than that.

OpenSSH contains no GPL code.

1)
    * Copyright (c) 1995 Tatu Ylonen <ylo@cs.hut.fi>, Espoo, Finland
    *   All rights reserved
    *
    * As far as I am concerned, the code I have written for this software
    * can be used freely for any purpose.   Any derived versions of this
    * software must be clearly marked as such, and if the derived work is
    * incompatible with the protocol description in the RFC file, it must be
    * called by a name other than "ssh" or "Secure Shell".

    [Tatu continues]
    * However, I am not implying to give any licenses to any patents or
    * copyrights held by third parties, and the software includes parts that
    * are not under my direct control.   As far as I know, all included
    * source code is used in accordance with the relevant license agreements
    * and can be used freely for any purpose (the GNU license being the most
    * restrictive); see below for details.

    [However, none of that term is relevant at this point in time.   All of
    these restrictively licenced software components which he talks about
    have been removed from OpenSSH, i.e.,

    - RSA is no longer included, found in the OpenSSL library
    - IDEA is no longer included, its use is deprecated
    - DES is now external, in the OpenSSL library
    - GMP is no longer used, and instead we call BN code from OpenSSL
    - Zlib is now external, in a library
    - The make-ssh-known-hosts script is no longer included
    - TSS has been removed
    - MD5 is now external, in the OpenSSL library
    - RC4 support has been replaced with ARC4 support from OpenSSL
    - Blowfish is now external, in the OpenSSL library

    [The licence continues]

    Note that any information and cryptographic algorithms used in this

software are publicly available on the Internet and at any major

bookstore, scientific library, and patent office worldwide.　More

information can be found e.g. at "http://www.cs.hut.fi/crypto".

The legal status of this program is some combination of all these

permissions and restrictions.　Use only at your own responsibility.

You will be responsible for any legal consequences yourself; I am not

making any claims whether possessing or using this is legal or not in

your country, and I am not taking any responsibility on your behalf.

<div align="center">NO WARRANTY</div>

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.

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.

2)

The 32-bit CRC compensation attack detector in deattack.c was

contributed by CORE SDI S.A. under a BSD-style license.

* Cryptographic attack detector for ssh - source code

*

* Copyright (c) 1998 CORE SDI S.A., Buenos Aires, Argentina.

*

* All rights reserved. Redistribution and use in source and binary

* forms, with or without modification, are permitted provided that

* this copyright notice is retained.

*

* THIS SOFTWARE IS PROVIDED ``AS IS'' AND ANY EXPRESS OR IMPLIED

* WARRANTIES ARE DISCLAIMED. IN NO EVENT SHALL CORE SDI S.A. BE

* LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY OR
* CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR MISUSE OF THIS
* SOFTWARE.
*
* Ariel Futoransky <futo@core-sdi.com>
* <http://www.core-sdi.com>

3)

ssh-keyscan was contributed by David Mazieres under a BSD-style
license.

* Copyright 1995, 1996 by David Mazieres <dm@lcs.mit.edu>.
*
* Modification and redistribution in source and binary forms is
* permitted provided that due credit is given to the author and the
* OpenBSD project by leaving this copyright notice intact.

4)

The Rijndael implementation by Vincent Rijmen, Antoon Bosselaers
and Paulo Barreto is in the public domain and distributed
with the following license:

* @version 3.0 (December 2000)
*
* Optimised ANSI C code for the Rijndael cipher (now AES)
*
* @author Vincent Rijmen <vincent.rijmen@esat.kuleuven.ac.be>
* @author Antoon Bosselaers <antoon.bosselaers@esat.kuleuven.ac.be>
* @author Paulo Barreto <paulo.barreto@terra.com.br>
*
* This code is hereby placed in the public domain.
*
* THIS SOFTWARE IS PROVIDED BY THE AUTHORS "AS IS" AND ANY EXPRESS
* OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED
* WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE
* ARE DISCLAIMED.   IN NO EVENT SHALL THE AUTHORS OR CONTRIBUTORS BE
* LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR
* CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF
* SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR
* BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY,
* WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE
* OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE,
* EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

5)

One component of the ssh source code is under a 3-clause BSD license,
held by the University of California, since we pulled these parts from

付録

第三者ソフトウェアライセンス

original Berkeley code.

 * Copyright (c) 1983, 1990, 1992, 1993, 1995
 *   The Regents of the University of California.   All rights reserved.
 *
 * Redistribution and use in source and binary forms, with or without
 * modification, are permitted provided that the following conditions
 * are met:
 * 1. Redistributions of source code must retain the above copyright
 *   notice, this list of conditions and the following disclaimer.
 * 2. Redistributions in binary form must reproduce the above copyright
 *   notice, this list of conditions and the following disclaimer in the
 *   documentation and/or other materials provided with the distribution.
 * 3. Neither the name of the University nor the names of its contributors
 *   may be used to endorse or promote products derived from this software
 *   without specific prior written permission.
 *
 * THIS SOFTWARE IS PROVIDED BY THE REGENTS AND CONTRIBUTORS ``AS IS'' AND
 * ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE
 * IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE
 * ARE DISCLAIMED.   IN NO EVENT SHALL THE REGENTS OR CONTRIBUTORS BE LIABLE
 * FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL
 * DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
 * OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)
 * HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT
 * LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY
 * OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF
 * SUCH DAMAGE.

6)

Remaining components of the software are provided under a standard
2-term BSD licence with the following names as copyright holders:

      Markus Friedl
      Theo de Raadt
      Niels Provos
      Dug Song
      Aaron Campbell
      Damien Miller
      Kevin Steves
      Daniel Kouril
      Wesley Griffin
      Per Allansson
      Nils Nordman
      Simon Wilkinson

Portable OpenSSH additionally includes code from the following copyright

holders, also under the 2-term BSD license:

    Ben Lindstrom

    Tim Rice

    Andre Lucas

    Chris Adams

    Corinna Vinschen

    Cray Inc.

    Denis Parker

    Gert Doering

    Jakob Schlyter

    Jason Downs

    Juha Yrj・・

    Michael Stone

    Networks Associates Technology, Inc.

    Solar Designer

    Todd C. Miller

    Wayne Schroeder

    William Jones

    Darren Tucker

    Sun Microsystems

    The SCO Group

    Daniel Walsh

* Redistribution and use in source and binary forms, with or without

* modification, are permitted provided that the following conditions

* are met:

* 1.   Redistributions of source code must retain the above copyright

*   notice, this list of conditions and the following disclaimer.

* 2.   Redistributions in binary form must reproduce the above copyright

*   notice, this list of conditions and the following disclaimer in the

*   documentation and/or other materials provided with the distribution.

*

* THIS SOFTWARE IS PROVIDED BY THE AUTHOR ``AS IS'' AND ANY EXPRESS OR

* IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES

* OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED.

* IN NO EVENT SHALL THE AUTHOR BE LIABLE FOR ANY DIRECT, INDIRECT,

* INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT

* NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE,

* DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY

* THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT

* (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF

* THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

7)

Portable OpenSSH contains the following additional licenses:

付録

第三者ソフトウェアライセンス

a) md5crypt.c, md5crypt.h

     * "THE BEER-WARE LICENSE" (Revision 42):

     * <phk@login.dknet.dk> wrote this file.　As long as you retain this

     * notice you can do whatever you want with this stuff. If we meet

     * some day, and you think this stuff is worth it, you can buy me a

     * beer in return.　　Poul-Henning Kamp

b) snprintf replacement

     * Copyright Patrick Powell 1995

     * This code is based on code written by Patrick Powell

     * (papowell@astart.com) It may be used for any purpose as long as this

     * notice remains intact on all source code distributions

c) Compatibility code (openbsd-compat)

Apart from the previously mentioned licenses, various pieces of code
in the openbsd-compat/ subdirectory are licensed as follows:

Some code is licensed under a 3-term BSD license, to the following
copyright holders:

     Todd C. Miller

     Theo de Raadt

     Damien Miller

     Eric P. Allman

     The Regents of the University of California

     Constantin S. Svintsoff

     * Redistribution and use in source and binary forms, with or without

     * modification, are permitted provided that the following conditions

     * are met:

     * 1.　Redistributions of source code must retain the above copyright

     *　　notice, this list of conditions and the following disclaimer.

     * 2.　Redistributions in binary form must reproduce the above copyright

     *　　notice, this list of conditions and the following disclaimer in the

     *　　documentation and/or other materials provided with the distribution.

     * 3.　Neither the name of the University nor the names of its contributors

     *　　may be used to endorse or promote products derived from this software

     *　　without specific prior written permission.

     *

     * THIS SOFTWARE IS PROVIDED BY THE REGENTS AND CONTRIBUTORS ``AS IS'' AND

     * ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE

     * IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE

     * ARE DISCLAIMED.　IN NO EVENT SHALL THE REGENTS OR CONTRIBUTORS BE LIABLE

     * FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL

* DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
* OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)
* HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT
* LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY
* OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF
* SUCH DAMAGE.

Some code is licensed under an ISC-style license, to the following
copyright holders:

  Internet Software Consortium.
  Todd C. Miller
  Reyk Floeter
  Chad Mynhier

* Permission to use, copy, modify, and distribute this software for any
* purpose with or without fee is hereby granted, provided that the above
* copyright notice and this permission notice appear in all copies.
*
* THE SOFTWARE IS PROVIDED "AS IS" AND TODD C. MILLER DISCLAIMS ALL
* WARRANTIES WITH REGARD TO THIS SOFTWARE INCLUDING ALL IMPLIED WARRANTIES
* OF MERCHANTABILITY AND FITNESS. IN NO EVENT SHALL TODD C. MILLER BE LIABLE
* FOR ANY SPECIAL, DIRECT, INDIRECT, OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES
* WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION
* OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN
* CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

Some code is licensed under a MIT-style license to the following
copyright holders:

  Free Software Foundation, Inc.

* Permission is hereby granted, free of charge, to any person obtaining a   *
* copy of this software and associated documentation files (the   *
* "Software"), to deal in the Software without restriction, including   *
* without limitation the rights to use, copy, modify, merge, publish,   *
* distribute, distribute with modifications, sublicense, and/or sell   *
* copies of the Software, and to permit persons to whom the Software is   *
* furnished to do so, subject to the following conditions: *
*   *
* The above copyright notice and this permission notice shall be included   *
* in all copies or substantial portions of the Software.   *
*   *
* THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS   *
* OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF   *
* MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT.   *
* IN NO EVENT SHALL THE ABOVE COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM,   *

```
* DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR      *
* OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR      *
* THE USE OR OTHER DEALINGS IN THE SOFTWARE.                                 *
*                                                                           *
* Except as contained in this notice, the name(s) of the above copyright     *
* holders shall not be used in advertising or otherwise to promote the       *
* sale, use or other dealings in this Software without prior written         *
* authorization.                                                             *
****************************************************************************/
```

C.7 zlib-1.2.3

Copyright (C) 1995-2005 Jean-loup Gailly and Mark Adler

This software is provided 'as-is', without any express or implied
warranty.   In no event will the authors be held liable for any damages
arising from the use of this software.

Permission is granted to anyone to use this software for any purpose,
including commercial applications, and to alter it and redistribute it
freely, subject to the following restrictions:

1. The origin of this software must not be misrepresented; you must not
    claim that you wrote the original software. If you use this software
    in a product, an acknowledgment in the product documentation would be
    appreciated but is not required.
2. Altered source versions must be plainly marked as such, and must not be
    misrepresented as being the original software.
3. This notice may not be removed or altered from any source distribution.

Jean-loup Gailly   Mark Adler
jloup@gzip.org   madler@alumni.caltech.edu

The data format used by the zlib library is described by RFCs (Request for
Comments) 1950 to 1952 in the files http://www.ietf.org/rfc/rfc1950.txt
(zlib format), rfc1951.txt (deflate format) and rfc1952.txt (gzip format).

付録

第三者ソフトウェアライセンス

PureFlow GS1

トラフィックシェーパー

PF7000A

PF7001A

PF7010A

PF7011A

取扱説明書

■ 製品をご使用前に必ず本書をお読みください。本書は製品とともに保管してください。

Λnritsu

PureïFlow GS1　トラフィックジェネレーター　PF7000A/PF7001A/PF7010A/PF7011A　取扱説明書

/Inritsu

Printed in Japan