BLUE 4.0
Read Me

Document Revision: 01

目次

1 ソフトウェアの説明

このソフトウェアは、PC でヒューマンマシンインタフェース(HMI)のユーザーアプリケーションを開発するための統合開発環境を提供します。開発した HMI ユーザーアプリケーションは、ランタイムソフトウェアによって複数のハードウェアで動作します。

2 動作環境 (画面編集ソフトウェア)

	最小仕様	コメント
PC	Windows PC/AT 互換マシン	-
CPU	第 8 世代 Intel(R) Core™ i3/i5 プロセッサー以上	-
メモリー	8 GB 以上	-
ハードディスクスペース	30 GB 以上	-
ディスプレイ	1280 × 720	-
OS	Windows 10 Pro (64-bit) 最新更新版 Windows 11 Pro、 Pro for Workstations、 Pro Education、 and Education 最新更新版 Windows Server 2022 最新更新版 *1	-
オペレーティングシステム以外のプログラム	.NET Framework 4.7.2 full	-

*1 Windows Server 2022 にインストールされた画面編集ソフトウェアは複数のユーザーからの同時接続には対応していません。

MEMO:

- 本製品は、アドミニストレーター権限のあるユーザーアカウントでインストールの上、ご使用ください。

- ソフトウェアのインストールファイルには、電子署名が設定されています。インストール中に電子署名に関する問題が発生した場合は、インストールを中止し、カスタマーサポートに問い合わせてください。

3 アクセス権限

3.1 画面編集ソフトウェア

画面編集ソフトウェアのインストールまたはアンインストールは、管理者権限で実行してください。

3.2 ランタイム (IPC シリーズまたは PC/AT 使用時)

ランタイムのインストールまたはアンインストールは、管理者権限で実行してください。

プロジェクトファイルを転送する場合、転送前にランタイムを管理者権限で起動してください。

4 安全なアプリケーションのために

このセクションでは、アプリケーションを安全に設定するためのポイントについて説明します。

MEMO: セキュリティー関連のメッセージはフィードバックゾーンの [セキュリティー警告] タブに表示されます。メッセージを確認し、サイバーセキュリティーのリスクを軽減するための是正措置を実行してください。

4.1 サイバーセキュリティーベストプラクティス

Pro-face 製品を保護し安全性を維持するために、サイバーセキュリティーのベストプラクティスを実践することをお勧めします。

記載の推奨事項を実践していただくことで、お客様のサイバーセキュリティーリスクを減らすことが期待できます。

推奨事項については、以下の URL を参照してください。

https://www.pro-face.com/trans/ja/manual/1087.html

4.2 不正アクセス防止のための安全なネットワークを構築する

● 暗号化された通信を使用した通信環境を構築してください。(例: VPN)

● イーサネット経由で通信を確立してデータを転送する前に、ネットワークの安全性を確認してください。

● イーサネット通信に基づいていない転送オプションを選択します。 (例: USB ケーブルまたはファイルシステム)
  イーサネット通信に基づいた転送オプションが必要な場合は、IPsec の使用を推奨します。

● 通信サービスを使用する場合にのみ、データ通信用のポートを開いてください。

● パソコンはファイアウォールで保護し、信頼できる安全なネットワークでご使用ください。

● 表示器は信頼できる安全なネットワークに設置し、ファイアウォールで保護してください。

4.3 表示器上での権限外操作を防止する

● セキュリティー機能を使用してください。

  ➢ 自動ログアウト機能を使用してください。

  ➢ ロックを解除するための適切なセキュリティーレベルを、限定されたユーザーにのみ与えてください (管理者権限を持つユーザーのみにロック解除を許可する等)。

● 以下のオペレーションでは、パスワードが要求されません。

  ➢ 接続機器オペレーションブロック - Upload (USB Storage/SD Card)

  ➢ 接続機器オペレーションブロック - Download (USB Storage/SD Card)

  ➢ ハードウェア設定画面の表示

  上記のオペレーションで使用されるスイッチに、セキュリティーレベルの設定をしてください。

● 表示器への接続に Web Viewer を使用している場合、パスワードを表示させる [***] ボタンは押さないでください。表示させたパスワードは、接続されているすべての表示器および Web Viewer クライアントに表示されます。

4.3.1 SP5000 シリーズオープンボックス (Windows 10 IoT Enterprise モデル)、IPC シリーズ、PC/AT を使用する場合

- ランタイムは信頼のできるパソコンでのみ使用してください。

- プロジェクトファイルの転送、またはその他の管理者権限が必要な操作を実行する場合を除き、管理者権限をもつアカウントで Windows にログインしないでください。

- Windows のセキュリティー機能を使用してください (パスワードの設定、自動ログアウト機能の使用など)。

- プロジェクトの管理者アカウントに安全なパスワードとセキュリティーを設定してください。

4.4 情報の改ざんから保護する

- 次のガイドラインを使用し、サイバーセキュリティーのベストプラクティス (ウイルス対策、オペレーティングシステムの更新、強力なパスワードポリシー、アプリケーション許可リストソフトウェアなど) に従ってパソコンを強化します。
https://www.pro-face.com/trans/ja/manual/1087.html

- ご自身のデータを慎重に管理してください。

- プロジェクトパスワードを追加して、プロジェクトを保護してください。

- USB ケーブルまたはイーサネットケーブルによる転送オプションを使用する場合は、[転送方法] の [セキュリティー設定] を有効にしてください。

- Windows 管理者権限で画面編集ソフトウェアを実行しないでください。

- 画面編集ソフトウェアは信頼のできるパソコンでのみ使用してください。

5 ライセンス認証

ライセンスの認証方法については、Schneider Electric HMI License Manager のヘルプを参照してください。

6 ツール

以下のツールは、インストールされた¥Tools フォルダーから頒布することができます。

- Export Validation Tool
- User Management Tool

7 新機能および機能改善

7.1 ドライバーの更新

新バージョンのソフトウェア (STEP7 V20) を以下のドライバーでサポートしました。

- Siemens AG - TIA Portal Ethernet

新バージョンの L5K ファイル (Studio 5000 V37) は以下のドライバーで対応できるようになりました。

- Rockwell Automation, Inc. - EtherNet/IP

以下のドライバーが更新され、Process 変数および Safety 変数のシンボルがインポートされるようになりました。

- Schneider Electric – Modbus TCP Master

以下のドライバーでシンボルリンク機能に対応できるようになりました。

- Beckhoff Automation GmbH - Beckhoff TwinCAT ADS/AMS

7.2 新しい機能

HMI License Manager

- 画面編集ソフトウェアおよびランタイムのライセンス認証方法が変更されました。ライセンスを認証するには、認証ソフトウェア（HMI License Manager）を使用してください。

コンパウンドオブジェクト

- コンパウンドオブジェクトの作成および使用がサポートされるようになりました。コンパウンドオブジェクトは、複数のオブジェクトを組み合わせた自作のオブジェクトです。

FTP 接続

- FTP 通信がサポートされるようになりました。表示器は FTP クライアントとして FTP サーバーに接続できます。

アイコン

- アイコンカテゴリが[ツールチェスト]に追加されました。

図形の結合

- 複数の図形やアイコンから単一の図形を生成できるようになりました。

テンプレート

- 新しいプロジェクトや新しいコンパウンドオブジェクトを作成する際にテンプレートが利用できるようになりました。テンプレートを使用する場合は、正しく動作するか確認してください。

アプリケーション設定

- プロパティウィンドウやダイアログボックスの表示位置を保持することが可能になりました。また、表示位置を初期状態に戻すことも可能です。

改善された機能

- アラーム表示器オブジェクトは、すべての復旧済みアラームを一度に非表示にできるようになりました。アラームの非表示設定はスクリプトで行います。

- データロギングで収集されたデータを消去できるようになりました。データの消去はスクリプトで行います。

- 画面編集ソフトウェアは、Windows 11 および Windows Server 2022 をサポートするようになりました。

- ウェブブラウザーオブジェクトで表示できるファイル/データ形式が増えました。

8 修正済み制限事項

8.1 作画時の修正済み制限事項

HMIIMG-13566	(画面編集ソフトウェア) 画面編集ソフトウェアで、プロジェクトファイルを閉じた後に再度開いた場合、タブの状態が変わる問題を改修しました。
HMIIMG-21071	(画面編集ソフトウェア) 画面編集ソフトウェアのレシピデータ編集画面で、コピーしたレシピデータを他のレシピデータの間に挿入した場合に、画面編集ソフトウェアが異常終了する問題を改修しました。
HMIIMG-20750	(フォント) 画面編集ソフトウェアのユーザーインターフェイスの言語とオブジェクトに設定されているデフォルトフォントが同じ場合に、表示器でテキストが表示されない問題を改修しました。
HMIIMG-20598	(画面編集ソフトウェア) 予約語を含むシンボルファイルをインポートした場合に、画面編集ソフトウェアが異常終了する問題を改修しました。

HMIIMG-19947	(シンボルリンク) ユーザー定義ファンクションブロックを含む SoMachine Basic ファイルを正しくインポートできない問題を改修しました。
HMIIMG-19881	(変数) CSV ファイルで変数をインポートした場合に、フォルダー名にドットが含まれる変数が正しくインポートできない問題を改修しました。

8.2 表示器使用時の修正済み制限事項

HMIIMG-7325	(IPC シリーズ、PC/AT) ランタイムをインストール後に初めて起動するときに、管理者として実行していない場合に Welcome Screen が表示されない問題を改修しました。
HMIIMG-14581	(ウェブブラウザー) ウェブブラウザー部品で、パスを利用した動的なコンテンツを表示すると、正しく表示されない問題を改修しました。
HMIIMG-7560	(ロギング) トレンドグラフの表示点数、ロギンググループの最大レコード数、および使用している表示器の組み合わせによっては、トレンドグラフの表示が非常に遅くなる問題を改修しました。
HMIIMG-16228	(IPC シリーズ、PC/AT) ランタイムを起動した後に、タッチ機能を備えたディスプレイの電源を投入した場合、タッチが効かなくなる問題を改修しました。
HMIIMG-18978	(ロギング) SD カードや USB ストレージにロギングデータを書き込んでいるときに表示器の電源が切れると、ロギングデータが破損し、ランタイムが起動できなくなる問題を改修しました。
HMIIMG-18894	(アラーム表示器) [アラーム表示器]オブジェクトで日付フォーマットの[パターン]を「m/d/yy」に設定するとフィルタリングが動作しない問題を改修しました。
HMIIMG-19879	(トリガー / オペレーション) スクリプトの[アプリケーションの起動]オペレーションでバッチファイルを実行した場合、コマンドプロンプトが前面に表示される問題を改修しました。
HMIIMG-23480	(レシピ) スクリプトの[レシピ]オペレーションでスナップショットや比較を短い間隔で繰り返した場合、ランタイムが動作しなくなる問題を改修しました。

8.3 サイバーセキュリティ

-	(サイバーセキュリティ) セキュリティの脆弱性に対処するため、以下のコンポーネントが削除されました。 (Flex Net Publisher および CVE-2024-2658)
	(サイバーセキュリティ) 以下のセキュリティの脆弱性が改修されました。 - CWE-74: Improper Neutralization of Special Elements in Output Used by a Downstream Component ('Injection') 詳細は以下のウェブサイトを参照してください。 https://cwe.mitre.org/data/definitions/74.html

9 制限事項

この章では、 画面編集ソフトウェア、ランタイムにおける制限事項を説明しています。

9.1 インストーラーの制限事項

HMIIMG-9134	(画面編集ソフトウェア) 画面編集ソフトウェアのインストール先に Unicode 文字を含むパスを指定するとインストールが失敗します。Unicode 文字を含まないパスを指定してください。
HMIIMG-20159	(画面編集ソフトウェア) 画面編集ソフトウェアまたはランタイムの使用中に[アプリケーションを終了しない（再起動が必要になる場合があります）]を選択してアンインストールした場合、完全にアンインストールすることができません。アンインストールは画面編集ソフトウェアまたはランタイムを終了してから行ってください。
HMIIMG-20811	(画面編集ソフトウェア) Visual Studio の Visual C++再頒布可能パッケージが事前にインストールされていない場合、画面編集ソフトウェアのインストール中に再起動のダイアログボックスが表示されます。再起動後はインストールが再開されないため、再度画面編集ソフトウェアのインストーラーを実行してください。
HMIIMG-21285	(ランタイム) ランタイムのインストールまたはアンインストールで、パソコンを再起動せずにインストールとアンインストールを繰り返した場合、一時フォルダーに多くのファイルが作成され、ディスク容量を消費する場合があります。この場合は、一時フォルダー内のファイルを削除するか、インストールまたはアンインストール後にパソコンを再起動してください。
HMIIMG-23097	(画面編集ソフトウェア) Windows のフォルダーパスの最大文字数は 260 文字です。インストール先フォルダーのパスが 70 文字を超えるとインストールに失敗する場合があります。失敗した場合はインストール先フォルダーのパスを短くしてください。

9.2 作画時の制限事項

HMIIMG-14578	(画面編集ソフトウェア) Windows 8.1 および Windows Server 2012 R2 は、画面編集ソフトウェアに対応していない OS です。画面編集ソフトウェアをインストールすることは可能ですが、正常に起動することはできません。
-	(画面編集ソフトウェア) 画面編集ソフトウェアで、ナビゲーションスイッチのプロパティにエラーがある場合、エラーウィンドウに表示されたメッセージからエラー箇所に移動することができない場合があります。エラーウィンドウで[ソース]、[パス]、[プロパティ]の内容を確認し、手動でエラー箇所に移動してください。
HMIIMG-14754	(画面編集ソフトウェア) 画面編集ソフトウェアで、スクリプトにエラーがあった場合、エラーウィンドウに表示されるエラーの数がブロックモードとテキストモードで異なる場合があります。
-	(プロジェクトファイル変換) 本バージョンで下記プロジェクトファイルを開く前に、リンク先を参照ください。マニュアルのトップページから[機能ガイド]のアイコンをクリックし、表示されたマニュアルの目次から[ご使用の前に] - [プロジェクトファイル変換の注意点]の順に選択します。
HMIIMG-3101	(コンテンツ表示器) コンテンツ表示器および参照先コンテンツの幅・高さの値を、他のプロパティやスクリプトから参照しても、値が正しく取得できない場合があります。
HMIIMG-337	(フォント) フォントの種類に含まれる、Chinese_Simplified_GB2312_Gothic は将来のバージョンにて使用できなくなる予定です。 このフォントを使用した古いバージョンのプロジェクトファイルを本バージョンで開くと、Chinese_Simplified_GB18030_Gothic に変換されます。
HMIIMG-10595	(スクリプト) スクリプト編集画面のテキストモードで検索と置換を使用する場合、特殊文字（'＄'、'＾'、'＊'など）を含む検索が正しく動作しないことがあります。
HMIIMG-9909	(スクリプト) スクリプト編集画面がテキストモードの場合、[参照項目]ウィンドウからテキストモードのスクリプトを置換することはできません。スクリプト編集画面の検索と置換を使用してください。
HMIIMG-3391	(トリガー / オペレーション) スクリプト上で、動作対象外のオブジェクトをタッチトリガーに指定しても、画面編集ソフトウェア上でエラーになりません。 -アラーム表示器 -ハードウェア設定 -レシピデータ表示器 -画像表示器 -ウェブブラウザー

	-全てのレイアウトオブジェクト -画面 / コンテンツ -グループオブジェクト
HMIIMG-8160	(アラーム) スクリプトでアラームメッセージを変更できません。画面編集ソフトウェアでアラームメッセージを変更するスクリプトを作成するとエラーが発生します。
HMIIMG-6850	(変数) "Structure" という名前の変数を含む変数ファイルをインポートしないでください。
-	(シンボルリンク) シンボルファイルをインポートする場合、以下の制限事項があります。 未対応データタイプ -ENUM -INTERFACE 指定された既存データタイプに変換されるデータタイプ -SUBRANGE -POINTER TO -REFERENCE 構造体データタイプに変換されるデータタイプ -UNION -FUNCTION_BLOCK
-	(シンボルリンク) Rockwell L5K ファイルの NamedBasic タイプの変数は、シンボルリンクで文字列変数として取り込まれます。
-	(シンボルリンク) %IWS と %QWS は SoMachine Basic File only Modbus (.SMBP)から取り込むことができません。
HMIIMG-9036	(シンボルリンク) インポートしたシンボルファイルにサポートされていない文字を含む PLC 変数があると、[Invalid unicode character]エラーが表示される場合があります。可能であれば、PLC ソフトウェアで変数の名前を変更してください。
HMIIMG-13268	(シンボルリンク) 機器名とフォルダ名は、プロジェクトファイル内で一意である必要があります。シンボルリンク機能を使用する場合は、シンボルファイルをインポートする前に、名称が重複していないことを確認してください。
-	(転送) 転送失敗後に表示される復旧転送用画面では、ファイルシステム転送によってランタイムバージョンをバージョン 3.1.100 未満からアップグレードすることはできません。
HMIIMG-3294	(転送) プロジェクトファイルを転送中に[ALT]キーを押すと、転送に失敗する場合があります。
-	(IPC シリーズ、PC/AT) [IPC シリーズ および PC/AT] バージョン 3.1 以前のランタイムをご使用の場合、バージョン 3.1 Service Pack1 以降のプロジェクトファイルを転送することはできません。 転送しようとすると、画面編集ソフトウェア上で以下のエラーメッセージが表示されます。

	[ダウンロード操作では更新はできません。インストーラーを使用して、ランタイムを最新バージョンに更新してください。] 転送するには、最新バージョンのランタイムをインストールする必要があります。 インストーラーDVD の以下のパスから、ランタイムのインストールを開始できます。 "¥BLUE_Setup¥BLUERuntime¥BLUERuntime.exe" 最新バージョンのランタイムをインストールすると、インストール前に転送されていたプロジェクトファイルが消去されます。インストール後にプロジェクトファイルを再度転送してください。 .NET Framework がまだインストールされていない場合、またはそのバージョンが古い場合、.NET Framework もインストールされます。.NET Framework のインストール後、インストール先が再起動されます。 最新バージョンのランタイムをインストールするために、既にインストールされているランタイムをアンインストールする必要はありません。
HMIIMG-16476	(部品 / 図形) プロジェクトファイルを開いた場合、ランプやマルチステートランプなどの状態を変更できる部品で、[可視]プロパティのバインディングソースの情報が失われる場合があります。以下の手順に従って、修正してください。 手順 1：問題が発生する画面/コンテンツをコピーし、別の画面 ID/コンテンツ ID として貼り付けます。 手順 2：コピー元の画面/コンテンツを削除します。 手順 3：コピー先の画面 ID/コンテンツ ID をコピー元の値に変更します。 手順 4：[可視]プロパティを再度設定し、プロジェクトファイルを保存します。
HMIIMG-17096	(変数) 変数をエクスポートする際、[設定先]に設定するフォルダー名の文字数が多いと、フォルダーパス内のフォルダー名が省略される場合があります。
HMIIMG-18132	(マスター画面) 以前のバージョンでは、マスター画面に配置できるオブジェクト数の計算にナビゲーションスイッチなどの自動作成される部品は含まれていませんでした。このバージョン以降では、自動作成される部品も含まれるため、上限に近いオブジェクトを配置している場合はエラーが表示される場合があります。
HMIIMG-19644	(シンボルリンク) 暗号化レベル 128 を含む XVM ファイルはインポートできません。インポートするには、ノード <crypted Level="128" >の行を削除してください。
HMIIMG-19416	(プロジェクト変換) バージョン 3.4 以前で作成されたプロジェクトファイルを本バージョンの画面編集ソフトウェアで開くと、プロジェクトデータが破損し、一部のスクリプトが表示されない場合があります。 その場合は該当するスクリプトを開き、改行を挿入するなどの編集を行うことで正常な表示に戻ります。
HMIIMG-16288	(変数) 要素数が 2147483647 を超える配列変数は表示器では正しく表示できません。

HMIIMG-19920	(画面編集ソフトウェア) 異なるバージョンの画面編集ソフトウェアを同時に起動した状態でプロジェクトファイルを転送すると、誤ったランタイムバージョンが[ダウンロードマネージャー]ダイアログに表示される場合があります。転送時は、異なるバージョンの画面編集ソフトウェアを同時に起動しないでください。
HMIIMG-19269	(シンボルリンク) フォルダー名を含めた変数名に他の変数名と同じ名前が含まれているシンボルファイルはインポートできません。名前が重複しないように変更してください。
HMIIMG-18446	(画面編集ソフトウェア) 画面編集ソフトウェアは、テンポラリフォルダ（*）に一時ファイルを作成します。これらのファイルは自動で削除されないため、手動で削除してください。 * C:¥Users¥<ユーザー名>¥AppData¥Local¥BLUE¥

9.3　表示器使用時の制限事項

HMIIMG-11913	(画面 / コンテンツ) 表示器と接続機器の通信が不安定な場合、画面切り替え時に表示器の画面が数秒間フリーズする場合があります。
HMIIMG-1198	(ハードウェア設定画面) ハードウェア設定画面上の操作によりランタイムが再起動した時、外部ストレージの認識状態が更新されない場合があります。この場合は、表示器を再起動してください。
HMIIMG-5458	(ハードウェア設定画面) Pro-face Connect の初回設定時、ハードウェア設定画面で設定を変更した後に[Save & Restart]をタッチしてから、表示器の電源を再投入して再起動してください。
HMIIMG-3272	(ハードウェア設定画面) ハードウェア設定画面内の操作ログ画面でフィルター設定画面[Filter Simplified]からフィルターを実行した場合、項目が正しく表示されない場合があります。
HMIIMG-9202	(ハードウェア設定画面) ハードウェア設定画面では、ドライバーごとに最大32 台の機器の Scan Off Control が表示されます。 ハードウェア設定画面から Scan Off Control を変更できない場合は、機器のソースプロパティ'.ScanOffControl'を使用して Scan Off Control を変更してください。
HMIIMG-2768	(キーパッド) キーパッド表示中に高速でタッチを繰り返した場合、押下時の反転表示が表示されない場合があります。 これは表示だけの問題で、値の書き込みは正常に行われます。
HMIIMG-10937	(テキストボックス) テキストボックスオブジェクトで太字属性を使用すると、画面編集ソフトウェアと表示器で表示される文字の太さが異なる場合があります。

HMIIMG-3157	(アラーム表示器) アラーム表示器のフィルター設定画面[Filter Simplified]に表示できる項目は 146 個までです。147 個以上の項目がある場合は、[Search]にテキストを入力して絞り込むか、フィルター詳細設定画面[Filter Detailed]を使用してください。
HMIIMG-3272	(アラーム表示器) アラーム表示器のフィルター設定画面[Filter Simplified]でフィルターを実行した場合、項目が正しく表示されない場合があります。
HMIIMG-7465	(数値表示器) 数値表示器の[現在値]に、コンバーターと一緒にソースプロパティを設定している場合、数値表示器の[フォーマット]および[小数点桁数]プロパティが設定可能にもかかわらず、設定内容が適用されません。これらのプロパティの代わりに、コンバーターのプロパティで設定された内容が適用されます。対象のコンバーターは以下になります。 - 単位 - スケール - 定義式 上記は正しい動作であり、将来のバージョンアップにより、数値表示器の[フォーマット]および[小数点桁数]プロパティは、上記の場合では表示が無効になります。
HMIIMG-9007	(数値表示器) [Arabic_Gothic]または[Hebrew_Gothic]フォントで接頭辞や接尾辞を設定すると、表示器上の数値表示器で文字の順序が間違って表示されます。
HMIIMG-9613	(文字列表示器) IME で日本語入力する文字列表示器で[テキストを*として表示]を有効にしないでください。文字を入力する際に、現在格納されている文字列が表示されます。[テキストを*として表示]プロパティを使用する場合は、入力を開始する前に文字列をクリアするようにシステムを設計してください。
-	(ウェブブラウザー) ウェブブラウザー部品で TIFF および MNG 画像ファイルが非対応となりました。
HMIIMG-439	(トリガー / オペレーション) タッチ中のオブジェクトが、他のオブジェクトのアニメーションや、可視の変化によって隠された場合、タッチトリガー(Click または Release)はそのタイミングでは発生しません。トリガーはタッチ中オブジェクトが隠されていないものと認識して動作します。
-	(トリガー / オペレーション) [ファイル管理]オペレーションを使用する場合、ファイルまたはフォルダー名の文字が英語でない場合は[ファイル管理]オペレーションで表示されるダイアログ上でファイルまたはフォルダー名が正しく表示されません。
HMIIMG-14432	(トリガー / オペレーション) [オペレーションの結果]オペレーションを使用する場合、指定したオペレーションが失敗したときに、正しい結果が得られない場合があります。
HMIIMG-3316	(ロギング) [ファイル管理]オペレーションの実行中は、ログの周期によってはデータがログされない場合があります。

-	(ネットワーク) 運転中、ローカルネットワーク上に存在する他の機器と重複する IP アドレスを設定しようとする場合や、表示器と重複する IP アドレスを持つ機器をローカルネットワークに接続した場合、IP アドレスの重複を検出できません。 ランタイム起動時のみ、ローカルネットワーク上に存在する機器の IP アドレスをチェックし、表示器と重複があればシステムエラーを発報します。 表示器の IP アドレス変更後はランタイムが再起動されますので、再起動後にシステムエラーが発報されていないか確認してください。
HMIIMG-9614	(Web Viewer) プロジェクトの転送が失敗した場合、Web Viewer ライセンスは削除されます。同じライセンスキーコードを使用して、表示器で Web Viewer を再度追加してください。
HMIIMG-15921	(Web Viewer) 配管オブジェクトで、[影]を有効にし、完全に水平または垂直な形状で使用した場合、iOS および iPadOS 上の Web Viewer で正しく表示されない場合があります。
HMIIMG-438	(IPC シリーズ、PC/AT) ロギング、操作ログ、アラームのエクスポート先として、マルチバイト文字を含むフォルダー名またはファイル名を使用する場合、表示器の OS でシステムロケールを適切に設定する必要があります。
HMIIMG-438	(IPC シリーズ、PC/AT) 画像表示器の[保存先フォルダー]および画像のファイル名にマルチバイト文字を含む場合、表示器の OS でシステムロケールを適切に設定する必要があります。
HMIIMG-9134	(IPC シリーズ、PC/AT) ランタイムのインストール先に Unicode 文字を含むパスを指定するとインストールが失敗します。Unicode 文字を含まないパスを指定してください。
HMIIMG-3178	(外部ストレージ(SD カード / USB ストレージ)) 間断なく USB ストレージへのアクセスが発生している状態で、USB 取り出しを実行しても動作しない場合があります。 USB ストレージへのアクセスを中断する機能を設けるか、アクセス先のストレージを変更するなどの対応を行ってください。
HMIIMG-16671	(バーコードリーダー) USB バーコードリーダーは「日本語キーボード 106」および「英語キーボード 101」以外のキーコードには対応していません。
HMIIMG-16785	(コンテンツ表示器, スライドコンテンツ表示器) [角度]を設定したコンテンツ表示器またはスライドコンテンツ表示器で[ドロップダウンリスト]オブジェクトが配置されたコンテンツを表示すると、ドロップダウンリストの項目が表示されない場合があります。
HMIIMG-8313	(ファイルマネージャー) [ファイルマネージャー]オブジェクトで[列]の[タイトルを上下に整列]および[本文を上下に整列]プロパティを設定しても正しく動作しません。
HMIIMG-10622	(アラーム) [アラームモード]が[ヒストリカル]の場合、発報したタイミングで確認を実行するスクリプトを作成すると、[アラーム表示器]オブジェクトに発報表示が残ります。確認を実行するオペレーションの前に、[遅延]オペレーションを挿入してください。

HMIIMG-19120	(ロギング) SRAM に保存されている各データの合計が最大値に近い場合、アラームおよびロギングが正しく動作しない場合があります。それぞれの[最大レコード]の数を減らしてください。
-	(ウェブブラウザー) ウェブブラウザー部品では Web Viewer は使用できません。マニュアルの[機能ガイド]の Web Viewer 動作環境に記載されているウェブブラウザーを使用してください。
HMIIMG-19216	(トリガー / オペレーション) [塗り込み]に[放射グラデーション]を設定したオブジェクトでは、スクリプトで[カラーストップ]の各プロパティの値を変更してもオブジェクトには反映されません。
HMIIMG-9768	(テキストボックス) オブジェクトの[文字列]タブで文字飾りを斜体に設定した場合、リッチテキストタグでテキストの背景を設定しても背景は斜体になりません。
HMIIMG-20881	(外部ストレージ(USB ストレージ)) USB メモリーを取り外し、再度挿入してからレシピ機能を使用すると、正しく動作しません。この場合は、レシピを再度読み出してください。
HMIIMG-1773	(画面 / コンテンツ) 画面編集ソフトウェアとランタイムアプリケーションの描画は完全に一致しない場合があります。プロジェクトを表示器に転送する前に、シミュレーションで画面を確認してください。
HMIIMG-22979	(トリガー / オペレーション) 1 つのトリガー内で同じ外部変数を複数回変更しても、値はすぐには反映されません。値を複数回変更したい場合は、内部変数を使用するか、[値の変更]トリガーを使用した別のスクリプトを作成してください。
HMIIMG-23418	(コンパウンドオブジェクト) [STRING]のコンパウンドオブジェクトプロパティで[バリデーションルール]に[文字列の長さ]を選択した場合、設定値の単位は画面編集ソフトウェアが文字数、ランタイムがバイト数になります。マルチバイト文字は 1 文字に 2 バイト以上が必要なため、ランタイムで入力できるマルチバイト文字数は、画面編集ソフトウェアで設定した文字数より少なくなります。

9.4　通信ドライバーの制限事項

HMIIMG-3263	(OPC UA サーバー) OPC UA サーバー機能を使用している場合、表示器は初回起動時にサーバー証明書を生成します。また、OPC UA クライアントは初回の接続時にサーバー証明書を確認します。 以下の場合、サーバー証明書が更新されるため、OPC UA クライアントによるサーバー証明書の確認が再度必要になる場合があります。 -ハードウェア設定画面にある OPC UA サーバーのメニューから証明書の再発行(Regenerate Certificate)を行った場合 -ファイルシステムによる転送を行った場合（イーサネットまたは USB ケーブルによる転送の場合、この問題は発生しません）

HMIIMG-8765	(ドライバー) Schneider Electiric の Modbus タイプのドライバを使用している場合に、TM デバイスを含むシンボルファイルをインポートすると、それらのシンボルもインポートされます。ただし TM デバイスは未サポートのため、動作しません。
HMIIMG-7247	(SP5000X シリーズ、SP5000 シリーズパワーボックス / オープンボックス) CANopen Slave ドライバーと TIA Portal Ethernet ドライバーを同時使用する場合、他のドライバーを同時に使用しないでください。CANopen Slave ドライバーの通信が止まる恐れがあります。
HMIIMG-1065	(ST6000 シリーズ) フロー制御で XON/XOFF が動作しません。
HMIIMG-15528	(ドライバー) Schneider Electric - Machine Expert Network ドライバーで、配列の構造体に 'X'や'Y'という変数名の要素が存在する場合、これらの変数を使用するとランタイムが正しく通信しないことがあります。

9.5　サイバーセキュリティ

-	(サイバーセキュリティ) 信頼できるプロジェクトファイルのみ画面編集ソフトウェアで開いてください。

10 インストーラーの整合性検証

弊社ウェブサイトまたは Schneider Electric Software Update からインストーラーをダウンロードした場合、インストーラーの SHA256 が取得できます。インストーラー入手後、以下の手順に従って、SHA256 のチェックを行ってください。

手順 1 : Windows のスタートメニューから[Windows PowerShell] > [Windows PowerShell]を起動します。

手順 2 : 'Get-FileHash'にダウンロードしたファイルのファイルパスを指定します。

PS C:¥Users¥UserName> Get-FileHash　'C:¥Users¥Public¥Downloads¥Schneider Electric¥Software Update¥Downloads¥<installer executable fine name>'　(例 Soft_BLUE64_V34.exe)

手順 3 : Enter キーを押します。指定したファイルのハッシュが以下のように表示されます。

PS C:¥Users¥UserName> Get-FileHash 'C:¥Users¥Public¥Downloads¥Schneider Electric¥Software Update¥Downloads¥<installer executable fine name>'

*Algorithm　　　　Hash
Path*

---------   ----   -

SHA256
BCE70FCF3AA21663F828CF9244102533592F5721B10D6ABA1C050A5B815076EB
C:¥Users¥Public¥Downloads¥...:

手順 4：ファイルのハッシュと、ウェブサイトまたは Schneider Electric Software Update から取得した SHA256 を比較してください。

11 オープンソースソフトウェアについて

本製品に使用するオープンソースソフトウェアには、以下に記載の著作権で保護されているものが含まれます。

モジュール	バージョン	ライセンスの種類	ライセンステキスト
QT	5.1.1	LGPL V2.1	11.17 を参照
Lua	5.4.7	MIT	11.1 を参照
LuaPlus	5.4	MIT	11.1 を参照
SQLCipher	4.6.0	BSD with copyright	11.2 を参照
OpenSSL	1.1.1w	OpenSSL / SSLeay	11.3 を参照
mapm	4.9.5a	Free with copyright	11.4 を参照
libpng	1.6.37	libpng license	11.5 を参照
Anthy	9100h	LGPL	11.25 を参照
libxml2	2.9.4	MIT	11.6 を参照
ipsec-tools	0.8.2+patchs	BSD	11.7 を参照
rxi/json.lua	0.1.2	MIT	11.24 を参照
Protocol Buffers	2.6.1	BSD	11.8 を参照
luafilesystem	1.8.0	MIT	11.26 を参照
libcurl	8.11.1	The curl license	11.27 を参照
pcre	8.45	BSD	11.28 を参照

pcre2	10.4	BSD	11.21 を参照
zlib	1.3.1	zlib	11.22 を参照
libjpeg	9e	BSD	11.20 を参照
icu	74.2	Unicode	11.18 を参照
luasocket	3.1.0	MIT	11.23 を参照
Extended.Wpf.Toolkit	3.8.2	MS-PL	11.9 を参照
Humanizer.Core	2.14.1	MIT	11.30 を参照
log4net	3.0.3	Apache-2.0	11.10 を参照
Microsoft.Bcl.AsyncInterfaces	9.0.1	MIT	11.31 を参照
Microsoft.Bcl.HashCode	6.0.0	MIT	11.31 を参照
Microsoft.CodeAnalysis	4.12.0	MIT	11.31 を参照
Microsoft.CodeAnalysis.Analyzers	3.3.4	MIT	11.31 を参照
Microsoft.CodeAnalysis.AnalyzerUtilities	3.3.4	MIT	11.31 を参照
Microsoft.CodeAnalysis.Common	4.12.0	MIT	11.31 を参照
Microsoft.CodeAnalysis.CSharp	4.12.0	MIT	11.31 を参照
Microsoft.CodeAnalysis.CSharp.Features	4.12.0	MIT	11.31 を参照
Microsoft.CodeAnalysis.CSharp.Workspaces	4.12.0	MIT	11.31 を参照
Microsoft.CodeAnalysis.Elfie	1.0.0	MIT	11.31 を参照
Microsoft.CodeAnalysis.Features	4.12.0	MIT	11.31 を参照
Microsoft.CodeAnalysis.NetAnalyzers	9.0.0	MIT	11.31 を参照
Microsoft.CodeAnalysis.Scripting.Common	4.12.0	MIT	11.31 を参照
Microsoft.CodeAnalysis.VisualBasic	4.12.0	MIT	11.31 を参照
Microsoft.CodeAnalysis.VisualBasic.Workspaces	4.12.0	MIT	11.31 を参照
Microsoft.CodeAnalysis.Workspaces.Common	4.12.0	MIT	11.31 を参照
Microsoft.CSharp	4.7.0	MIT	11.31 を参照
Microsoft.Data.Sqlite.Core	3.1.32	Apache-2.0	11.31 を参照

Microsoft.DiaSymReader	2.0.0	MIT	11.31 を参照
Microsoft.DotNet.PlatformAbstractions	3.1.6	MIT	11.32 を参照
Microsoft.EntityFrameworkCore	3.1.32	Apache-2.0	11.31 を参照
Microsoft.EntityFrameworkCore.Abstractions	3.1.32	Apache-2.0	11.31 を参照
Microsoft.EntityFrameworkCore.Analyzers	3.1.32	Apache-2.0	11.31 を参照
Microsoft.EntityFrameworkCore.Relational	3.1.32	Apache-2.0	11.31 を参照
Microsoft.EntityFrameworkCore.Sqlite	3.1.32	Apache-2.0	11.31 を参照
Microsoft.EntityFrameworkCore.Sqlite.Core	3.1.32	Apache-2.0	11.31 を参照
Microsoft.Extensions.Caching.Abstractions	9.0.1	MIT	11.31 を参照
Microsoft.Extensions.Caching.Memory	9.0.1	MIT	11.31 を参照
Microsoft.Extensions.Configuration	9.0.1	MIT	11.31 を参照
Microsoft.Extensions.Configuration.Abstractions	9.0.1	MIT	11.31 を参照
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SQLitePCLRaw.bundle_e_sqlite3	2.1.10	Apache-2.0	11.36 を参照
SQLitePCLRaw.core	2.1.10	Apache-2.0	11.36 を参照
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SQLitePCLRaw.provider.dynamic_cdecl	2.1.10	Apache-2.0	11.36 を参照
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Unity.Abstractions	5.11.7	Apache-2.0	11.14 を参照
Unity.Configuration	5.11.2	Apache-2.0	11.14 を参照

Unity.Container	5.11.11	Apache-2.0	11.14 を参照
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XamlAnimatedGif	2.1.1	Apache-2.0	11.15 を参照
XAMLMarkupExtensions	2.1.3	MS-PL	11.16 を参照
NeoLua	0.9.17	Apache-2.0	11.11 を参照
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luac54_64.exe	5.4.7.0	MIT	11.1 を参照
@angular/animations	18.1.1	MIT	11.38 を参照
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11.1 LUA Plus / luac54_32.exe / luac54_64.exe

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11.5   libpng

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11.9   Extended.Wpf.Toolkit

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11.16 XAMLMarkupExtensions

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Google double-conversion

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JSON parsing library (nlohmann/json)

File: vendor/json/upstream/single_include/nlohmann/json.hpp (only for ICU4C)

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File: aclocal.m4 (only for ICU4C)
Section: pkg.m4 - Macros to locate and utilise pkg-config.

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11.19 libmng

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/* *                                                                            * */
/* ************************************************************************* */
/* *                                                                            * */
/* * Parts of this software have been adapted from the libpng package.          * */
/* * Although this library supports all features from the PNG specification * */
/* * (as MNG descends from it) it does not require the libpng package.          * */
/* * It does require the zlib library and optionally the IJG jpeg library,    * */
/* * and/or the "little-cms" library by Marti Maria (depending on the          * */
/* * inclusion of support for JNG and Full-Color-Management respectively.      * */
/* *                                                                            * */
/* * This library's function is primarily to read and display MNG              * */
/* * animations. It is not meant as a full-featured image-editing              * */
/* * component! It does however offer creation and editing functionality       * */
/* * at the chunk level.                                                        * */
/* * (future modifications may include some more support for creation          * */
/* *   and or editing)                                                          * */
/* *                                                                            * */
/* ************************************************************************* */
```

11.20 libjpeg

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11.21 PCRE2

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optimize pattern matching. This is an optional feature that can be omitted when
the library is built.

THE BASIC LIBRARY FUNCTIONS

Written by: Philip Hazel
Email local part: Philip.Hazel
Email domain: gmail.com

Retired from University of Cambridge Computing Service,
Cambridge, England.

PCRE2 JUST-IN-TIME COMPILATION SUPPORT

Written by: Zoltan Herczeg
Email local part: hzmester
Email domain: freemail.hu

STACK-LESS JUST-IN-TIME COMPILER

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11.22 zlib

11.23 LuaSocket

11.24 rxi/json.lua

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11.27 libcurl

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THE BASIC LIBRARY FUNCTIONS

Written by: Philip Hazel
Email local part: Philip.Hazel

Email domain: gmail.com

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11.29 libjpeg

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11.33 Microsoft.Web.WebView2

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11.34 Microsoft.Xaml.Behaviors.Wpf

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11.36 SQLitePCL.raw

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11.37 WPFLocalizeExtension

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11.39 ngx-translate (core / http-loader)

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11.42 commonjs-assert

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11.43 bootstrap

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11.44 jquery

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11.45 monaco-editor

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11.46 recast

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11.49 uuid

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11.50 zone.js

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