リリース ガイド

ERDAS IMAGINE 2020 update1

Version 16.6.1
2019 年 10 月 30 日

内容

このリリースについて

本書では、IMAGINE Photogrammetry（旧 LPS Core）と ERDAS ER Mapper を含め、ERDAS IMAGINE 2020 Update1（v16.6.1）の機能強化について説明します。本書には製品リリース時点での最新の情報が反映されていますが、最新バージョンについては、Hexagon Geospatial Support の Web サイトを参照してください。

Update 1 は、ERDAS IMAGINE 2020 の開発サイクルの後半にある新機能で特定されたいくつかの重要な問題に対処するためのターゲットを絞ったリリースです。したがって、このドキュメントは Update 1 の変更を強調していますが、ERDAS IMAGINE 2020 もカバーしています。 Update 1 で対処される重要な領域は次のとおりです。

- Pyramid generation
- Grow Features operator
- Predict Using Machine Learning operator
- Viewshed tool
- Subpixel Classifier

このリリースには、機能強化と修正の両方が含まれています。v16.6.0 及び v16.6.1 リリースで ERDAS IMAGINE に対して行われた修正については、「Issues Resolved」を参照してください。

本書では製品の機能の概要だけを示し、詳細をすべて説明しているわけではありません。詳細については、ERDAS IMAGINE のオンライン ヘルプとその他の付属ドキュメントを参照してください。

ERDAS IMAGINE 2020 は、ERDAS IMAGINE のほぼすべての側面を 64 ビットで実行できるようにすることに重点を置いて開発されました。その結果、インストーラーが ERDAS IMAGINE 2020 64 ビット、ERDAS IMAGINE 2020 32 ビット、ERDAS ER Mapper 2020 の 3 つのインストーラーに分けられました。

また、Compute Grey-Level Co-Occurrence Matrix 演算子などの新しい演算子が追加され、ソフトウェアの品質の改善も多数行われています。

ERDAS IMAGINE の製品群

ERDAS IMAGINE®は、高度なリモート センシング解析と空間モデリングを実行することで新しい情報を作成します。また、ERDAS IMAGINE では、2D、3D、動画、地図製作並みの地図構成で結果を表示できます。ERDAS IMAGINE 製品群の中心部分は、地理空間データの生成に対するユーザーのニーズに対応できるように設計されています。また、生産性を高め、機能を拡張するための専門的な機能を提供するオプション モジュール（アドオン）も用意されています。

IMAGINE Essentials®は、地図作成ツールとシンプルなフィーチャー収集ツールを備えたエントリレベルの画像処理製品です。IMAGINE Essentials では、シリアル バッチ処理が可能です。

IMAGINE Advantage®は、高度なスペクトル処理、画像登録、モザイク化と画像解析、変化検出などの機能を備えています。IMAGINE Advantage では、パラレル バッチ処理によって出力を高速化できます。

IMAGINE Professional®には、高度なスペクトル処理、ハイパースペクトル処理、レーダー処理、および空間モデリ

ングのための製作ツール セットが用意されています。また、ERDAS ER Mapper も含まれています。

IMAGINE Photogrammetry は、最先端の写真測量衛星画像および航空画像の処理アルゴリズムを使用して、生産性を最大限に高めます。

新しいプラットフォーム ERDAS IMAGINE2020 Update 1

フルインストーラー

以前のリリースでは、更新プログラムのインストーラーは、更新プログラムをインストールする前に基本製品を最初にインストールする必要がありました。たとえば、ERDAS IMAGINE 2018 Update 2（v16.5.2）をインストールするには、最初に ERDAS IMAGINE 2018（v16.5.0）をインストールする必要がありました（または以前のアップデート）。

ERDAS IMAGINE 2020 Update 1 以降では、更新インストーラーはインクリメンタルではなくなります。これはフルインストーラーになります。

つまり、スタンドアロンでインストールすることも（ERDAS IMAGINE 2020 Update 1 をインストールする必要なしに ERDAS IMAGINE 2020 Update 1 をインストールする）、または既存のインストールを更新するために使用することもできます（ERDAS IMAGINE 2020 であっても ERDAS IMAGINE 2020 Update 1 をインストールします）は既にインストールされており、既存のインストールを v16.6.1 に更新しています。

これは、フルインストーラーとして、以前にインストールされたバージョンへの更新をロールバックすることができなくなることを意味します。そのため、たとえば、ERDAS IMAGINE 2020 Update 1 を使用して ERDAS IMAGINE 2020 を更新した場合、アンインストールすると ERDAS IMAGINE 2020 全体が削除されます。その結果、「ロールバック」には ERDAS IMAGINE をアンインストールしてから目的の以前のバージョンを再インストールする必要があります。

新しいプラットフォーム ERDAS IMAGINE2020

完全な 64 ビット インストーラー

最新の 64 ビット コンピューターでは、真の 64 ビット アプリケーションとして実行できるため、4 GB を超えるメモリへの対応など、コンピューターのリソースを最大限に活用できます。

Hexagon では、64 ビットを実行するために、これまでのいくつかのリリースにわたって、ERDAS IMAGINE 実行可能ファイルを徐々に移行してきました。これらの各リリースでは、一部の非 GUI アプリケーション（ジョブ）が 32 ビットと 64 ビットの両方で利用可能になり、
ユーザーは実行するバージョンを Session Manager で構成できました。ERDAS IMAGINE
2018 では、メインのリボン GUI（ewkspace.exe）が 32 ビットと 64 ビットの両方でリリースされましたが、これらの構成のいずれかから起動したアプリケーションが 32 ビットと 64 ビット（利用可能な場合）のどちらとして実行されるかは、64 ビット構成設定によって異なっていました。この混在アプローチには問題がいくつかありました。特に、ユーザーが実行しようとしているジョブが 32 ビットと 64 ビットのどちらで実行されるかについて、ユーザーに対する透明性が欠如していました。

そのため、ERDAS IMAGINE 2020 では、2 つの別々のインストーラー（および ERDAS ER Mapper 用の 3 つ目のインストーラー）に明確に分けられました。1 つはスイート全体が 32 ビット アプリケーションとして実行され、もう 1 つはスイート全体が 64 ビットとして実行されます。つまり、ユーザーが ERDAS IMAGINE 2020 64 ビットを起動した場合、利用する機能が 64 ビットで実行されるのは確実であるため、大容量のシステム メモリや他のリソースを活用できます。

また、この分割により、構成タスクがはるかに簡単になります。ERDAS IMAGINE 2020 32 ビットで Python を使用する場合は、32 ビット バージョンの Python が必要です。ERDAS IMAGINE 2020 64 ビットで動作するように CSM/MSP を構成する場合は、64 ビット CSM/MSP が必要です。

全 3 つのインストーラー（ERDAS IMAGINE 2020 64 ビット、ERDAS IMAGINE 2020 32 ビット、ERDAS ER Mapper 2020）は、必要に応じて 1 台のコンピューターにインストールできます。

64 ビットが非常に優れているのに、ERDAS IMAGINE 2020 32 ビットが残されているのはなぜでしょうか。残念ながら、すべてのプログラムを 64 ビットに移植できるわけではありません。通常、32 ビットでのみ使用できるサードパーティ コンポーネントへの依存関係が存在するからです。このようなプログラムは、ERDAS IMAGINE 2020 64 ビットに正常に組み込まれたプログラムの数と比べると非常に限られています。ただし、製作ワークフローがこれらの機能のいずれかに依存している可能性があるため、これらの機能を必要とするお客様が必要に応じて引き続き使用できるように、ERDAS IMAGINE 2020 32 ビットが提供されています。

ERDAS IMAGINE 2020 32 ビットでのみ使用可能な機能は次のとおりです。

- Image Equalizer
- Image Catalog
- StereoSAR DEM
- IMAGIZER
- External Projections
- Surfacing Tool（非推奨。Terrain Prep Tool を推奨）
- ESRI Grid のサポート
- MultiGen OpenFlight 形式のサポート
- Oracle Geospatial Raster のサポート
- ArcSDE のサポート
- TerraModel TIN のサポート
- IRS Sensor モデル
- MapInfo のサポート
- ジオデータベースのサポート

コンポーネントの利用状況によっては、将来、これらの機能の一部が 64 ビット バージョンの ERDAS IMAGINE に移行する可能性があります。

ArcGIS 10.7

ERDAS IMAGINE 2020（32 ビット）は、ジオデータベース サポート ライブラリを提供するために、ライセンス版の ArcGIS 10.6、10.6.1、および 10.7 がインストールされた環境でテストされており、この環境を使用している場合にサポート対象となることが発表されました。

また、IMAGINE Geodatabase Support コンポーネント（ArcGIS Engine 10.7 ベース）をインストールして、ジオデータベースをサポートすることもできます。

現時点では、ArcGIS 10.7.1 はサポートされていないことに注意してください。

ライセンス

ERDAS IMAGINE 2020 では、Geospatial Licensing ツールはインストーラーの一部として自動的にインストールされなくなりました。Geospatial Licensing ツールを使用する場合は（フローティング/同時接続ライセンス サーバーをセットアップする場合など）、Hexagon Geospatial Licensing 2020 ツールを別途ダウンロードする必要があります。

最新バージョンの Hexagon Geospatial Licensing 2020 にアップグレードすることを
強くお勧めします。バージョンが不明な場合は、Windows の[プログラムの追加と削除]ユーティリティを参照して、現在インストールされているバージョンを
確認してください。

該当するダウンロードについては、Hexagon Geospatial の Web サイトの[Downloads]セクションで確認できます。

https://download.hexagongeospatial.com/search?lang=en&product=b3b4786d3d4742ae8d1e7aeee50dae69

新しい技術 ERDAS IMAGINE2020 Update 1

SIPS 2.4 13a サポート

インストーラーは、Unclassified SIPS v2.4.13a XML ファイルを使用してデフォルトのイメージチェーン表示パラメーターを制御するように更新されました。

SIPS の拡張バージョンは、IMAGINE Defense Productivity Module（DPM）から入手できます。。

新しい技術 ERDAS IMAGINE2020

Spatial Modeler の新しい演算子

Hexagon では、Spatial Modeler に新しい演算子を追加し続けています。新しい（または変更された）演算子とその機能に

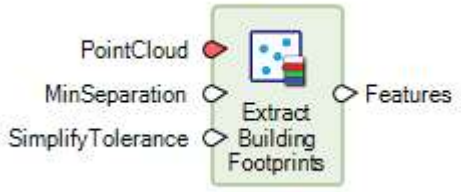
ついて、以下で簡単に説明します。各演算子の詳細については、ERDAS IMAGINE 2020 のヘルプを参照してください。また、これらの機能の多くを使用した空間モデルの例については、Hexagon Geospatial Community の「Spatial Recipes」ページを参照してください。

Classify Buildings

この演算子は、入力ポイント クラウドから建物に位置するポイントを特定し、それらを Building クラス（クラス 6）に再割り当てします。ポイント クラウド内の地面に位置するポイントがすでに分類されている（つまり、Ground クラス（クラス 2）に割り当てられている）必要があります。入力ポイント クラウド内の地面ポイントが分類されていない場合は、Classify Ground 演算子を使用して分類できます。

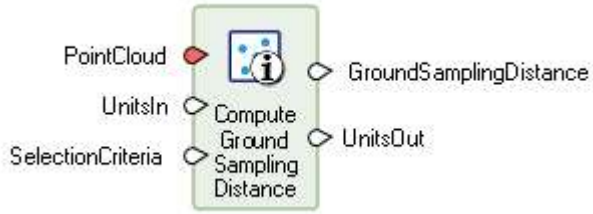
分類は、指定された高さと面積の基準を満たす地上の平面領域を探して、非地面ポイントと隣接するポイントの幾何学的関係を解析することによって実行されます。

Extract Building Footprints



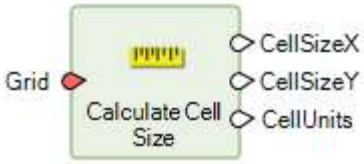
この演算子は、ポイント クラウド内の、Building ポイント（クラス 6）にすでに分類されているポイントに基づいて、建物の占有領域を
抽出します。ポイント クラウド内の地面に位置するポイントと建物に位置するポイントが、それぞれ Ground クラス（クラス 2）と Building クラス（クラス 6）にすでに分類されている必要があります。

Compute Ground Sampling Distance



この演算子は、隣接するポイント間の距離を解析することによって、ポイント クラウドの地上サンプリング距離を計算します。デフォルトでは、ラスト リターンとシングル リターンを持つ最初の 1000 ポイントが計算に含まれます。SelectionCriteria ポートにデータを設定することで、これをオーバーライドできます。通常、この演算子からの出力は、ポイント クラウドからラスターに変換するときのセル サイズを指定するために使用されます。

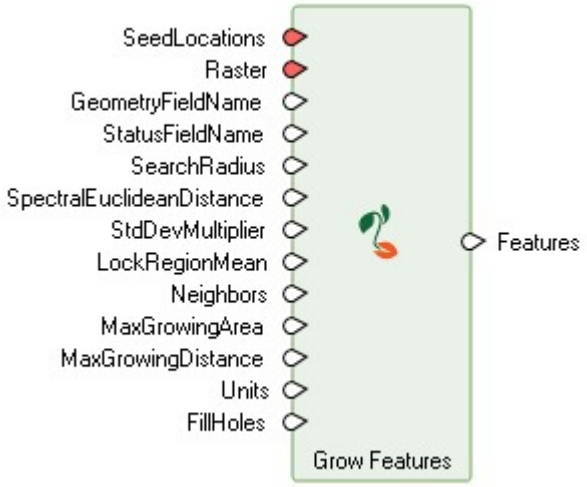
Calculate Cell Size



この演算子は、リサンプリングされる入力グリッドまたは入力画像の適切な地上空間のピクセル寸法を計算します。これは、入力グリッドがオルソ補正される参照可能なグリッドである場合（RPC が埋め込まれた NITF 画像など）、または入力グリッドを別の CRS に再投影する場合に最も頻繁に必要となります。

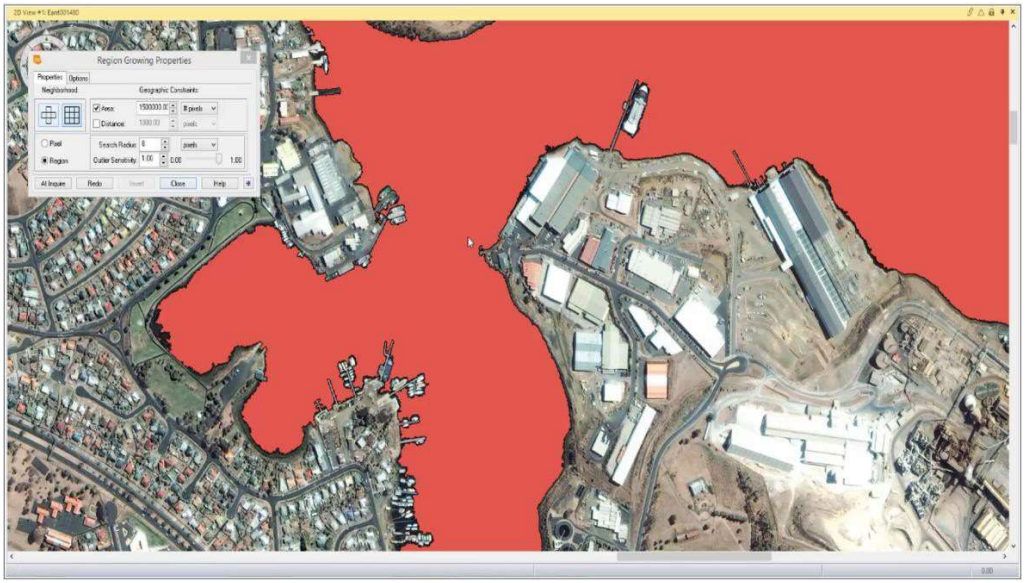
使用されるアルゴリズムは ERDAS IMAGINE の標準のリサンプル ダイアログにも組み込まれているため、各ダイアログに設定されたデフォルトのピクセル サイズでは、（オーバーサンプリングなしで）最適なレベルの精度を維持するよう試みます。

Grow Features

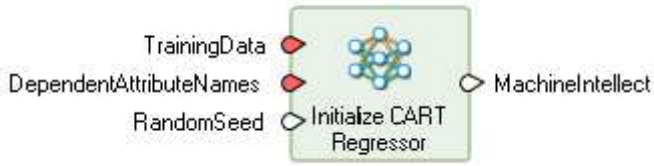


Grow Features 演算子は、シード ピクセルをより大きな領域に拡大して、ラスター データとシード ピクセルからフィーチャーを抽出します。領域は、シード ピクセルにスペクトル的に類似する隣接ピクセルを追加することで拡大されます。シードとスペクトル的に類似しているかどうかを判断するために各隣接ピクセルが評価され、類似している場合は領域に組み込まれます。拡大された領域には、評価対象となる新しい隣接ピクセルが含まれます。このプロセスは、拡大中の領域に新しい隣接ピクセルが追加されなくなるまで（または拡大の他の制約のいずれかが満たされるまで）続きます。

改善された領域拡大アルゴリズムは、2D View のベクター編集ツールにも組み込まれています。

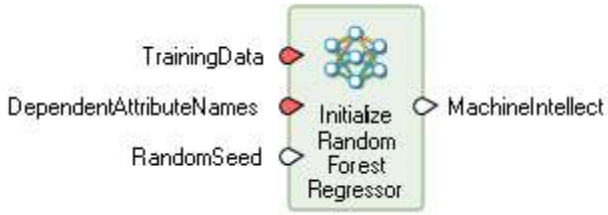


Initialize CART Regressor



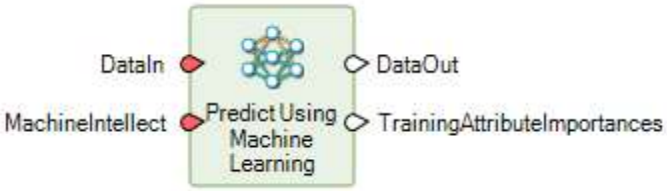
この演算子は、Regression Using Machine Learning 演算子を使用してデータを推定する際の入力として使用される CART リグレッサーを定義し、トレーニングします。

Initialize Random Forest Regressor



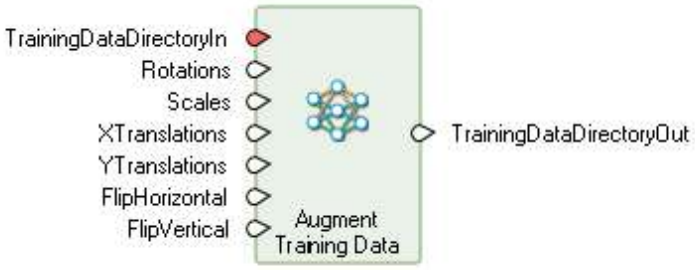
この演算子は、Regression Using Machine Learning 演算子を使用してデータを推定する際の入力として使用されるランダム フォレスト リグレッサーを定義し、トレーニングします。

Predict Using Machine Learning



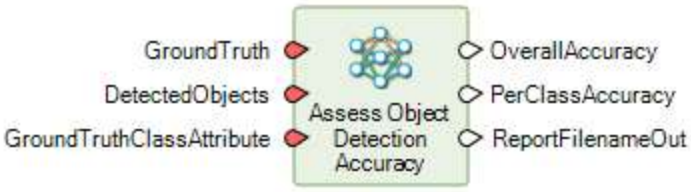
この演算子は、MachineIntellect ポートで指定されたトレーニング済みリグレッサーを使用して、入力データの回帰を実行します。入力データには、IMAGINE.Features 型または IMAGINE.Raster 型のデータを指定できます。

Augment Training Data



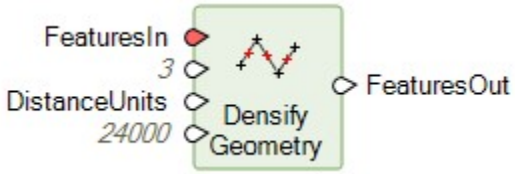
この演算子は、既存のトレーニング データを変更して Classify Using Deep Learning 用の追加のトレーニング データを作成します。選択したオプションに応じて、入力トレーニング データの回転、スケーリング、変換、または反転されたバージョンが生成されます。

Assess Object Detection Accuracy



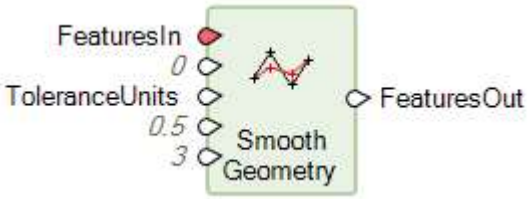
オブジェクト検出精度評価は、オブジェクト検出の結果をグラウンド トゥルース データと比較して、両者の一致を測定するプロセスです。この演算子は、グラウンド トゥルースを表すオブジェクトの矩形の境界ボックスとクラス属性を、オブジェクト検出によって検出されたオブジェクトと比較することで精度評価を実行します。

Densify Geometry



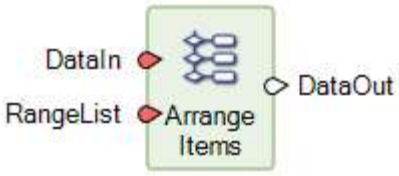
Densify Geometry 演算子は、最大距離係数を使用して、入力フィーチャーのジオメトリに頂点を追加します。2 つの頂点間の距離が MaxDistance よりも大きい場合は、2 つの頂点の中間に新しい頂点が挿入されます。頂点間の線分が MaxDistance よりも短くなるまで、または出力ジオメトリが MaxSize のサイズを超えるまで、この処理が繰り返されます。

Smooth Geometry



Smooth Geometry 演算子は、加重平均平滑化アルゴリズムを使用して入力フィーチャーのジオメトリを平滑化します。平滑化では、小さな摂動を取り除き、最も重要な傾向だけを取り込むために、ジオメトリ上のポイントの位置を変えます。単純化とは異なり、平滑化ではジオメトリのポイントの数は保持されますが、外観が改善されます。この演算子では、緻密化許容値、先読みカウント、重み付け係数によってアルゴリズムを制御できます。

Arrange Items

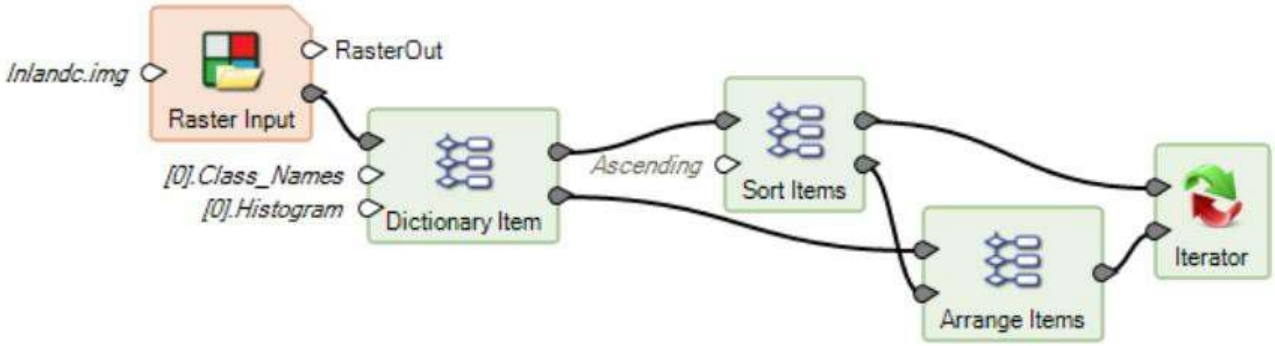


RangeList ポートで指定された順序を考慮して、リストまたはテーブルから値を選択、配置、複製して、出力リストまたはテーブルを作成します。

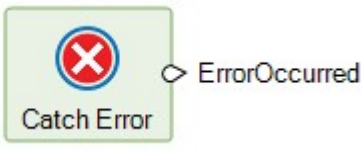
例：

DataIn が[-2 , 0 , 2 , 3 , 7 , 8]、RangeList が[0 , 1 , 3 , 0 , 3 , 5]の場合、DataOut は[-2 , 0 , 3 , -2 , 3 , 8]になります。DataIn が[-2 , 0 , 2 , 3 , 7 , 8]、RangeList が[0:2 , 1:4]の場合、DataOut は[-2 , 0 , 2 , 0 , 2 , 3 , 7]になります。

値のセットを値の別のセットと同じ方法で順序付けることができるように、この演算子は、Sort Items 演算子によって作成された出力と共によく使用されます。たとえば、2 つのテーブルがあり、1 つはクラス名で構成され、もう 1 つはそれらのクラス名に関連付けられたヒストグラム値で構成されているとします。Class Names テーブルが英数字順に並べ替えられている場合、ヒストグラム値も対応するクラス名に対して正しく並べ替えられるように、Sort Items によるインデックス出力をこの演算子への RangeList 入力として使用して、Histogram テーブルを再編成できます。



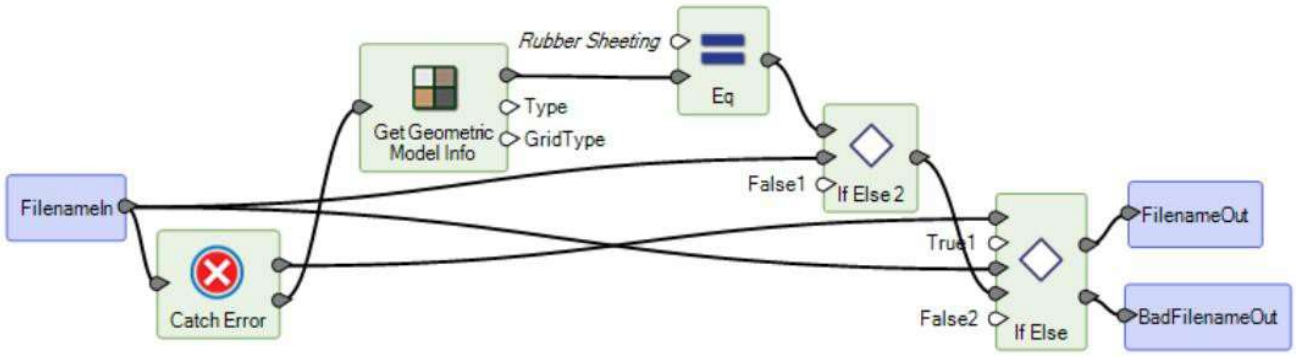
Catch Error



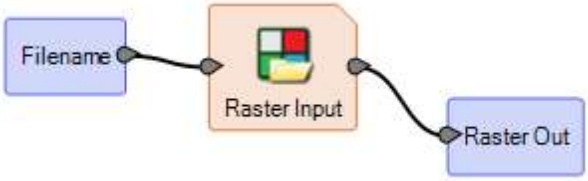
この演算子は、含まれているサブモデルの実行時にエラーが発生するかどうかの条件をブール値の結果に変換します。

たとえば、適用性が不確実なデータセット参照のコレクションに対して反復サブモデルを完了するまで実行できるようにする場合にこの演算子が役立ちます。次に示すサブモデルが Multi Filename Input 演算子の結果によって提供される Iterator に配置された場合、Catch Error サブモデルに含まれる Raster Input 演算子に適していないファイル名は、最終的に BadFilenameOut リストに含まれます。

Catch Error を使用した Iterator 演算子の内容：



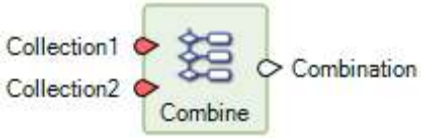
Catch Error サブモデル：



Color Input

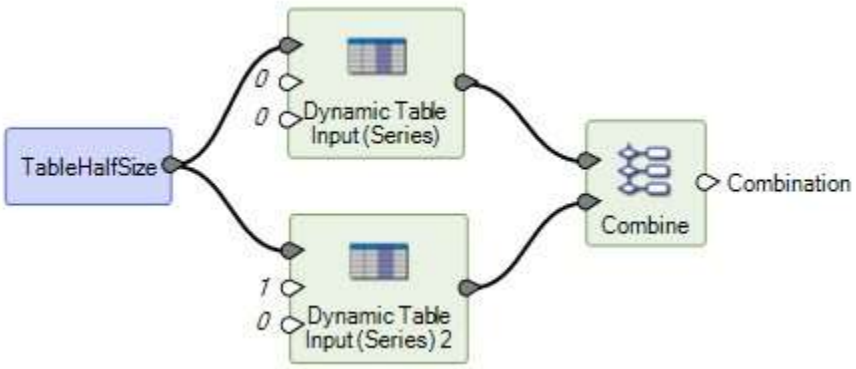
色を作成します。演算子をダブルクリックして構成ダイアログを開きます。[Color Chooser]が開きます。出力される色が Input ポートに配置されます。このポートはデフォルトで非表示になっています。

Combine

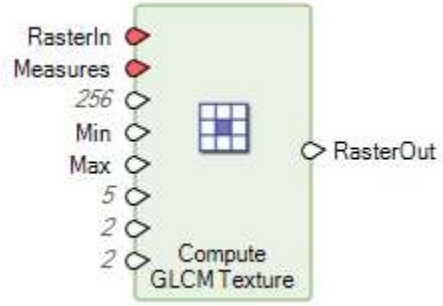


複数のリストを 1 つのリストに結合します。指定した順序で（**Collection1** の要素の後に **Collection2** の要素が続くなど）、指定したリスト/テーブルの各要素で構成される新しいリスト/テーブルが作成されます。これは拡張可能な演算子であるため、**Collection** ポートを必要な数だけ追加できます。

次のモデルは、2 つのテーブルを結合する方法を示しています。



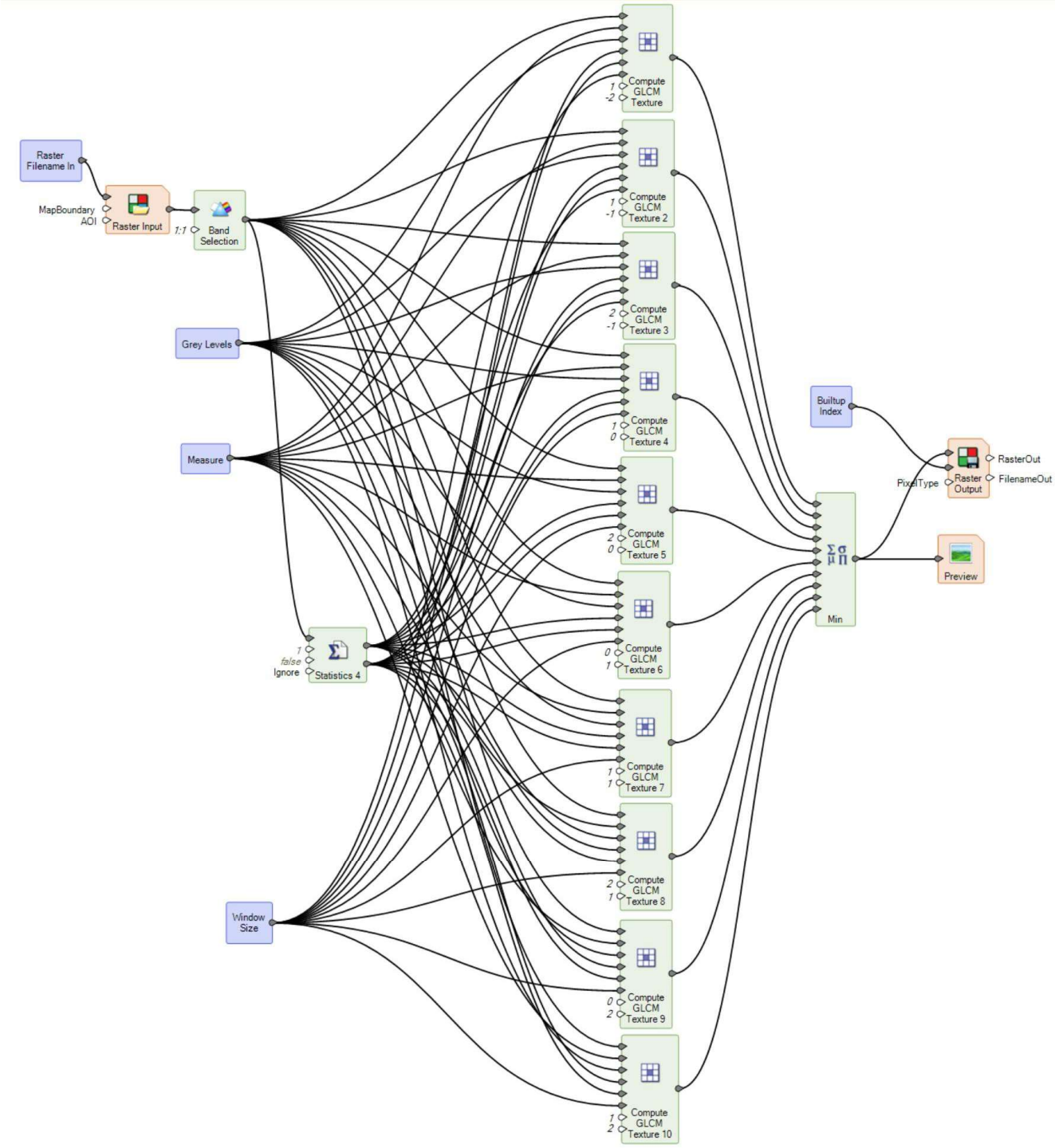
Compute GLCM Texture



入力画像のテクスチャ フィーチャーを計算します。指定されたテクスチャ フィーチャーは、ピクセルごとに内部生成されたグレーレベル同時生起行列（GLCM）のさまざまな統計的特性から計算されます。

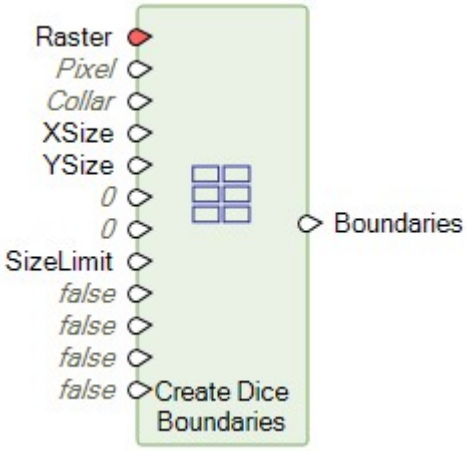
通常、グレーレベル同時生起行列を使用したテクスチャ計算は、元の画像に存在するテクスチャの「二次」測定と見なされます。テクスチャ測定は元の画像値から計算された統計（分散など）であり、ピクセルの隣接関係は考慮されないため、通常、従来のテクスチャ測定は「一次」と見なされます。これに対して、「二次」測定では、元の画像の（通常は隣接する）2 つのピクセルのグループ間の関係が考慮されます。

このようなテクスチャ測定は、画像分類（特に機械学習）などの他のプロセスへの入力や他の目的（次の例の密集した領域の識別など）のための派生情報として非常に有用と考えられています。



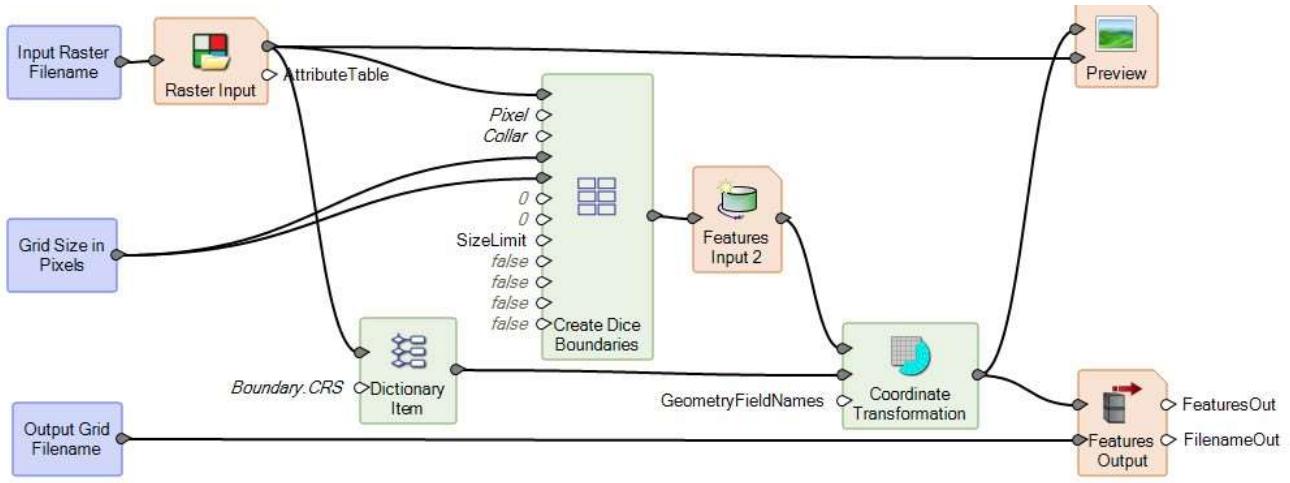
GLCM 計算は計算負荷が高いため、OpenCL を実行する GPU 対応グラフィックス カードがあるとメリットが得られます。

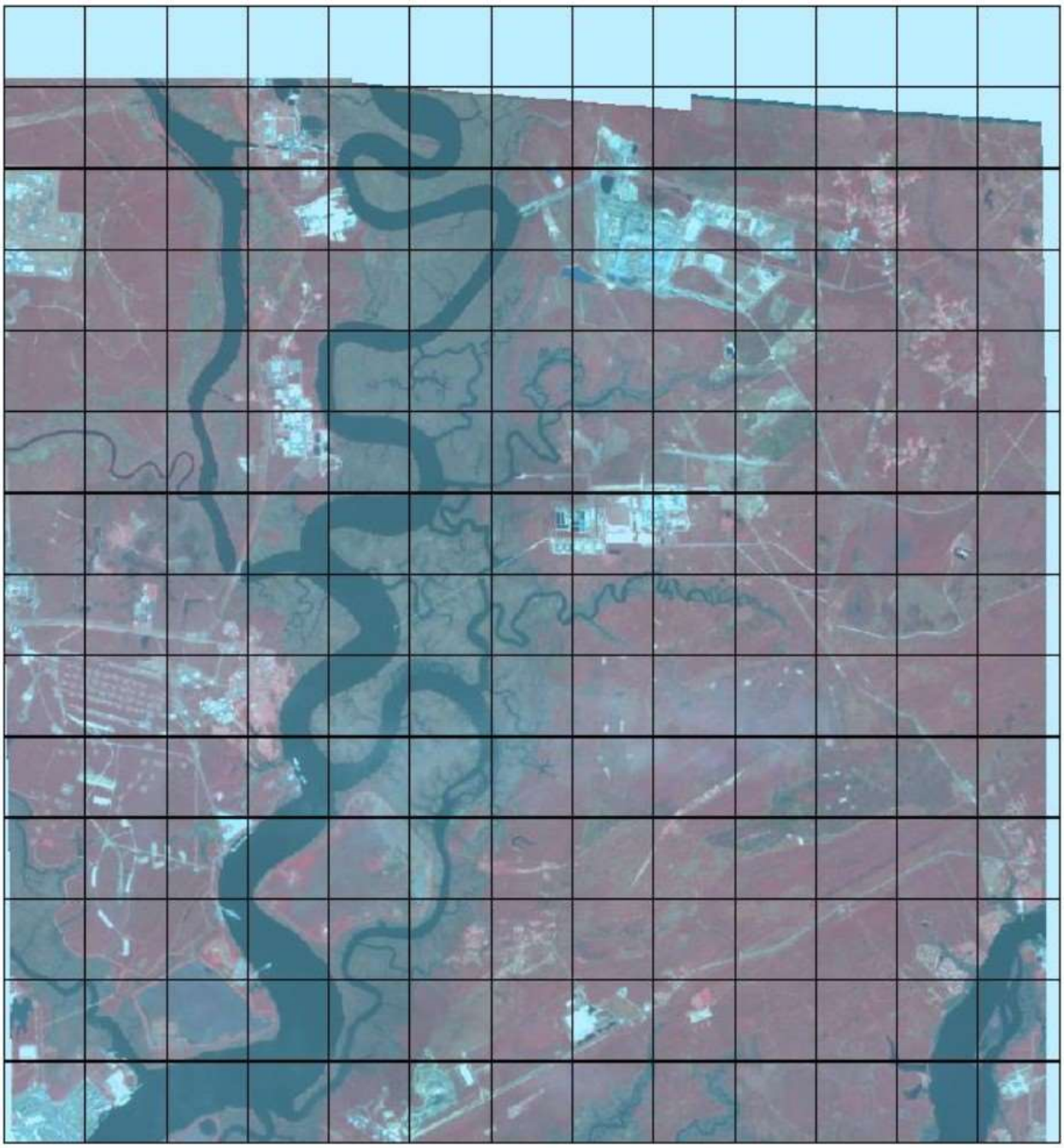
Create Dice Boundaries



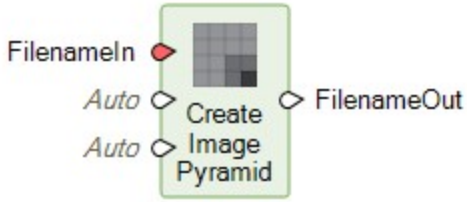
Create Dice Boundaries は、画像の境界を、サブセット化に使用できる、一定のサイズと間隔のより小さな境界に分割します。隣接する新しい境界は、XOverlap ポートと YOverlap ポートで指定された範囲で重ね合わせることができます。

次に示す空間モデルの例では、Create Dice Boundaries 演算子を使用して、画像上にエリア ポリゴン ジオメトリの規則的なグリッドを作成しています。これは、ゾーン変化検出や深層学習のフィーチャー特徴抽出に使用できます。





Create Image Pyramid



この演算子は、画像データセットの画像ピラミッドと画像統計の存在を保証します。

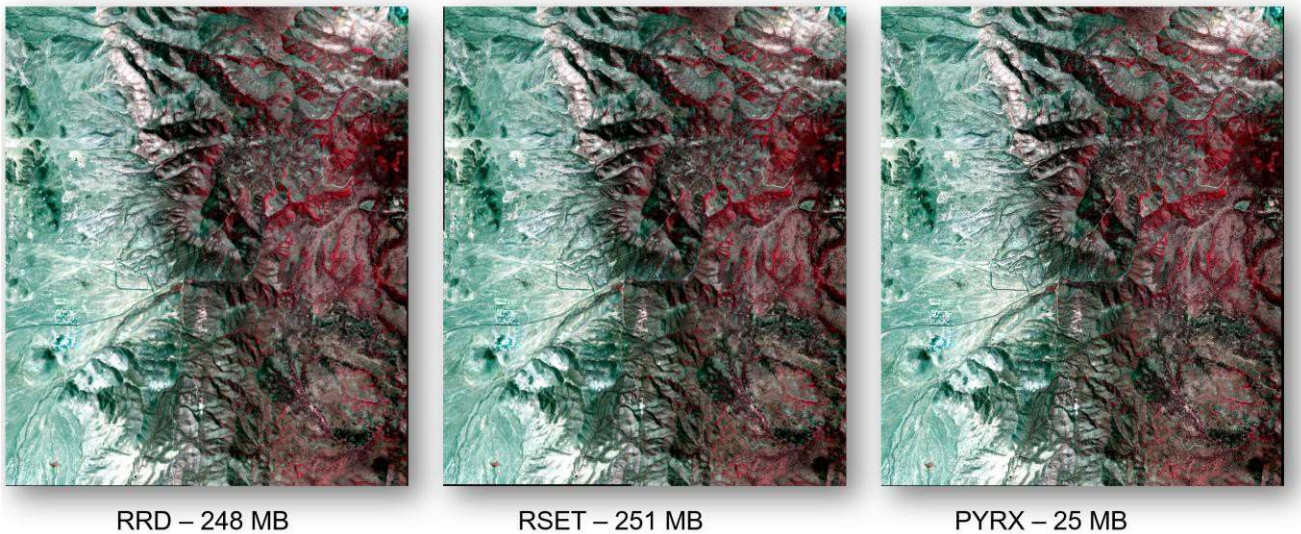
画像の永続的で最適なシーケンスを生成したり、シーケンスの存在を確認したりします（各画像は、シーケンス内の前の画像よりも解像度が徐々に低下します）。画像ピラミッドの主な用途は、元の解像度よりも大きいスケールで画像を表示するときに、レンダリング速度を上げ、エイリアシング アーティファクトを低減することです。

すべての画像ピラミッドを確実に同じタイプ（ジェネレーター）にし、指定したダウンサンプリング方法を使用して作成できるようにする場合や、新しい画像ピラミッドを強制的に作成する場合は、この演算子の前に Delete Image Pyramid 演算子を使用します。

この演算子は、画像の画像統計が利用可能であることも保証します。これは、適切な画像ピラミッドがすでに存在する場合でも行われます。

ピラミッド レベルを生成するこの新しいモードの主な利点の 1 つは、PYRX 形式のピラミッド ファイルを作成できることです。これらは ECW 圧縮を使用するため、高速であるだけでなく、従来のピラミッド ファイル形式よりも使用されるディスク容量がはるかに少なくなります。

次の例では、元の衛星画像のサイズは 713 MB です。3 つの異なる形式のピラミッド ファイルを生成し、フレームに合わせて画像を表示しています。PYRX ピラミッド ファイルは、表示品質を維持しながら、他の 2 つの形式の 1/10 のサイズになっています。



Create Image Pyramid は、Create RSETs でこれまで提供されていたすべての機能に代わるものであることに注意し

てください。今後は Create RSETs を使用しないでください。

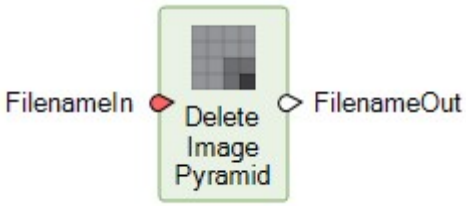
ピラミッド ファイルの生成の新しいモードは、Raster Output 演算子、ピラミッドのバッチ作成用の画像コマンド ツール（[Home]タブ > [Information]グループ > [Metadata]プルダウン > [Edit Image Metadata]）、[Image Metadata]ダイアログ（[Home]タブ > [Information]グループ > [Metadata]プルダウン > [View/Edit Image Metadata]）、Spatial Modeler を使用して処理を実行するアプリケーションにも組み込まれています。デフォルトで使用されるジェネレーターのタイプと、関連するダウンサンプリング手法は、[Preferences]で制御できます。

注：（64 ビット バージョンではなく）ERDAS IMAGINE 2020 32 ビットを日常的に実行している場合、プロセスで大きな画像ファイルの.pyrx 形式のピラミッド ファイルを作成しようとすると、メモリ不足に関するエラーが発生する場合があります。その場合、（ERDAS IMAGINE 2020 64 ビットを実行する以外に）次の 2 つの回避策があります。

- Preference Editor（[File] > [Preferences]）で、[Percentage of Available Memory to Consume]を小さい値（30%など）に変更して、Spatial Modeler の実行に使用できるメモリ量を減らします。これにより、ECW/JP2 エンコード エンジンによる圧縮の実行により多くのメモリを使用できるようになります。

- または、Pyramid Layer Generator の基本設定を、デフォルト設定から[Always use the RRD Pyramid Generator]に変更します。これにより、2020 リリースより前の方法でピラミッド ファイルを生成するようにソフトウェアが効率的に設定されます。

Delete Image Pyramid



Delete Image Pyramid は、ラスター画像から既存の画像ピラミッドを削除します。

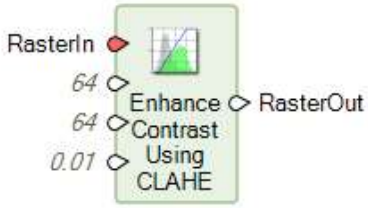
検出されたすべての画像ピラミッドが削除されます（可能な場合）。これには以下が含まれます。

- ERDAS 低解像度データセット（*.rrd）
- 拡張圧縮画像ピラミッド（*.pyrx）
- NITF RSET
- Minifiles
- GDAL Overviews（*.ovr）

削除できないピラミッドは次のとおりです。

- IMAGINE Image の内部のピラミッド（*.img）
- ウェーブレット圧縮のピラミッド（*.ecw、*.jp2、*.sid）

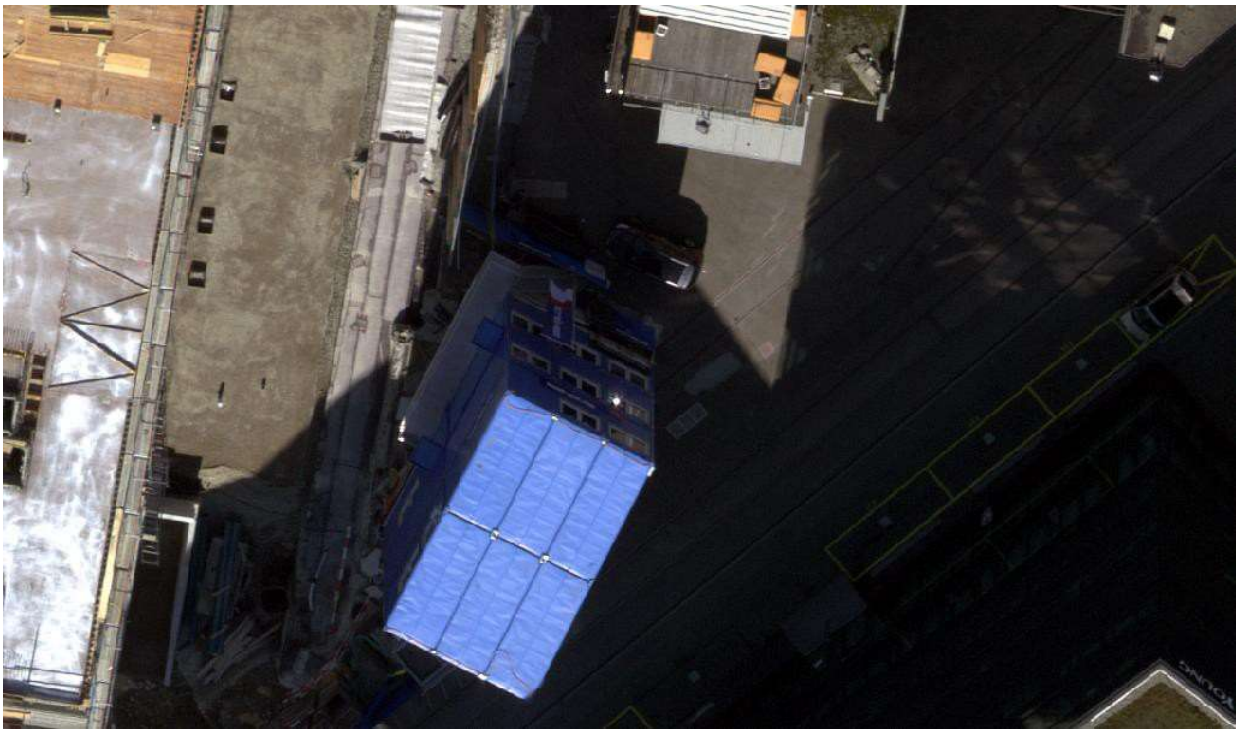
Enhance Contrast Using CLAHE



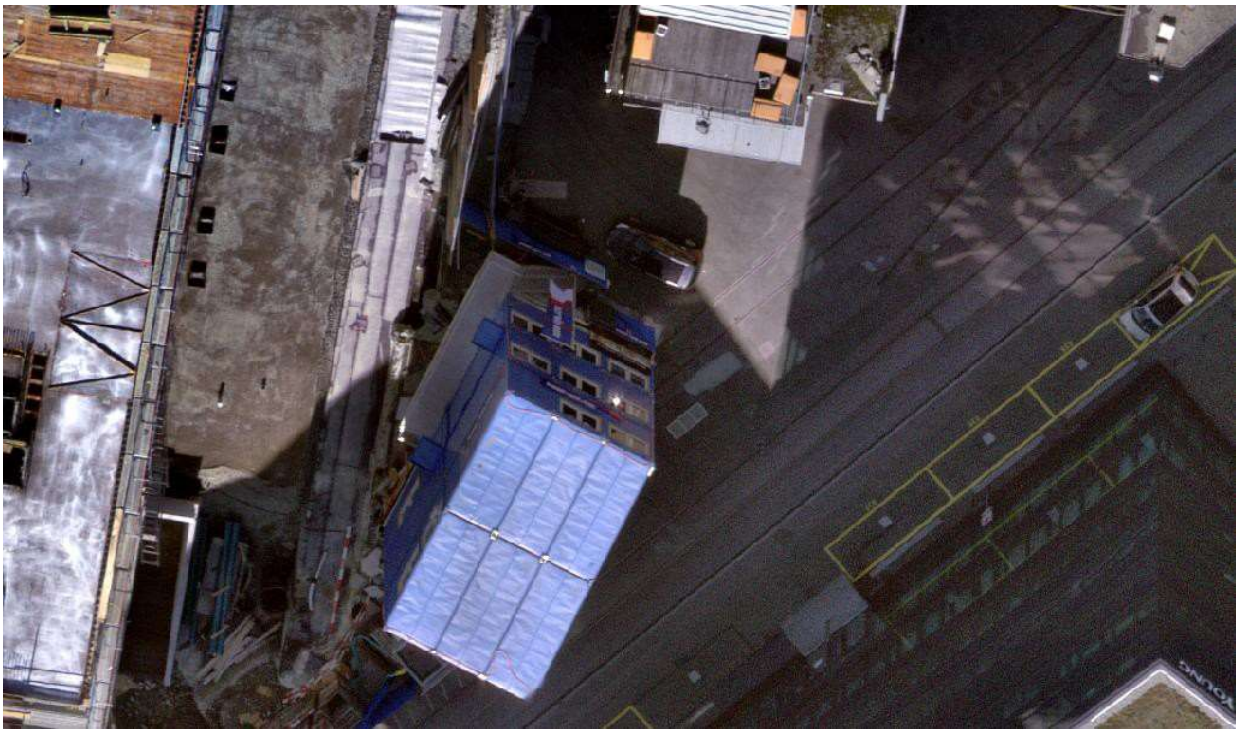
Contrast Limited Adaptive Histogram Equalization（CLAHE）アルゴリズムは、画像のコントラストを強調するために使用される手法です。従来のヒストグラム均等化では、画像ヒストグラムから導出された単一の変換を使用してすべてのピクセルを変換します。そのため、特に、表示されているデータのダイナミック レンジが 8 ビットよりも大きい場合（およびレンダリング ソフトウェアまたは表示デバイスでサポートされているのが、カラー チャネルごとに 8 ビットのみの場合）、ヒストグラムの暗い領域、明るい領域、
中間調の領域のコントラストのバランスを取ることができる単一の変換を導出することは困難です。

そこで、変換を空間的に適応させ、中間調の領域のコントラストを維持しながら、ラスターの暗い領域と明るい領域の詳細を明らかにするために、CLAHE などの手法が開発されました。たとえば、CLAHE では、大きな建物や雲などによって投じられた影で隠れている詳細を強調できます。このような場所では、ピクセルの DN 値が小さくなりますが、10、11、12 ビット以上のダイナミック レンジを持つセンサーの場合、広範囲の値が存在する可能性があります。しかし、カラー チャネルごとに 8 ビットのディスプレイに画像をレンダリングする際に使用されるグローバル ルックアップ テーブルでは、すべての影の領域が少数の暗さのビンに分類されます（つまり、視覚コントラストが低くなります）。CLAHE の空間的に適応する性質により、これらの影の領域に固有のコントラストを拡大したり明るくしたりすることが可能となり、隣接する影のない領域とのバランスを取ることができます。

たとえば、明るい領域と暗い影の両方が含まれた次の 12 ビットのカラー画像は、標準の LUT では影の部分の詳細がほとんど表示されていません。

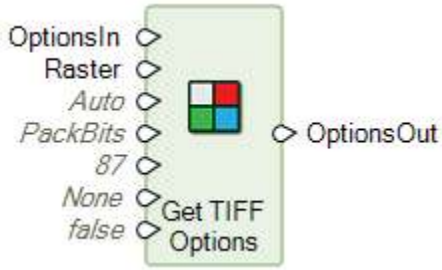


次のスクリーンショットは、Contrast Retention Factor を 0.2 に設定して Enhance Contrast Using CLAHE 演算子を使用した場合の
結果を示しています。



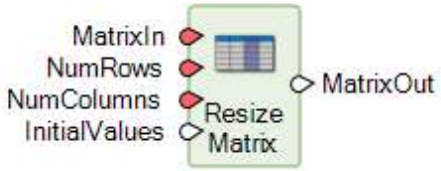
ご覧のように、すでに明るい領域を飽和させることなく、影の領域のコントラストが強調されています。

Get TIFF Options



Tagged Image File Format（TIFF）の形式固有の出力オプション ディクショナリを作成します。このディクショナリを Raster Output 演算子に提供して、必要な BigTIFF 形式、保持するアルファ チャネル、データ圧縮などの形式固有の出力パラメーターを制御できます。

Resize Matrix



この演算子の目的は、既存の行列を取得し、行や列を削除するか、新しい行や列（またはそれらの任意の組み合わせ）を追加して、その行列の次元を変更することです。新しい行や列を追加する場合、それらの新しいセルで使用する値を指定できます。行を削除すると、**MatrixIn** の下部から削除され、列を削除すると、**MatrixIn** の右側から削除されます。同様に、行を追加すると、**MatrixIn** の下部に追加され、列を追加すると、**MatrixIn** の右側に追加されます。

いずれかの次元（行または列）でのみ、**MatrixIn** を拡張する場合、**InitialValues** に行列を指定できます。行数を拡張する場合、**InitialValues** に指定する行列には、**MatrixIn** と同じ数の列が含まれている必要があります。行は、単一行でも、行列に追加する行と同じ数の行でもかまいません。単一行が含まれている場合、行列に追加されるすべての行がその単一行で埋められます。列数を拡張する場合、**InitialValues** に指定する行列には、**MatrixIn** と同じ数の行が含まれている必要があります。列は、単一列でも、行列に追加する列と同じ数の列でもかまいません。単一列が含まれている場合、行列に追加されるすべての列がその単一列で埋められます。

5 行 9 列の **MatrixIn** の使用例を次に示します。

$$\begin{bmatrix} 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\ 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\ 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\ 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\ 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \end{bmatrix}$$

- **NumRows** を 8、**NumColumns** を 14 に設定すると、3 行および 5 列で行列が拡張され、新しいセルが **InitialValues** に設定されます（InitialValues はスカラーである必要があります）。**InitialValues** が-1 の場合、**MatrixOut** は次のようになります。

$$\begin{bmatrix} 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & -1 & -1 & -1 & -1 & -1 \\ 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & -1 & -1 & -1 & -1 & -1 \\ 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & -1 & -1 & -1 & -1 & -1 \\ 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & -1 & -1 & -1 & -1 & -1 \\ 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & -1 & -1 & -1 & -1 & -1 \\ -1 & -1 & -1 & -1 & -1 & -1 & -1 & -1 & -1 & -1 & -1 & -1 & -1 & -1 \\ -1 & -1 & -1 & -1 & -1 & -1 & -1 & -1 & -1 & -1 & -1 & -1 & -1 & -1 \\ -1 & -1 & -1 & -1 & -1 & -1 & -1 & -1 & -1 & -1 & -1 & -1 & -1 & -1 \end{bmatrix}$$

- **InitialValues** が次のような 1 行 9 列の行列の場合、

$$\begin{bmatrix} 3 & 5 & 7 & 9 & 11 & 13 & 15 & 17 & 19 \end{bmatrix}$$

追加された行の列 0 は、**InitialValues** 行列のセル 0,0 の値に設定され、追加された行の列 1 は、**InitialValues** 行列のセル 0,1 の値に設定されます（以降も同様）。**MatrixOut** は次のようになります。

$$\begin{bmatrix} 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\ 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\ 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\ 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\ 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\ 3 & 5 & 7 & 9 & 11 & 13 & 15 & 17 & 19 \\ 3 & 5 & 7 & 9 & 11 & 13 & 15 & 17 & 19 \\ 3 & 5 & 7 & 9 & 11 & 13 & 15 & 17 & 19 \end{bmatrix}$$

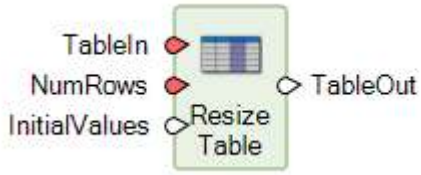
- **InitialValues** が次のような 3 行 9 列の行列の場合、

$$\begin{bmatrix} 11 & 12 & 13 & 14 & 15 & 16 & 17 & 18 & 19 \\ 21 & 22 & 23 & 24 & 25 & 26 & 27 & 28 & 29 \\ 31 & 32 & 33 & 34 & 35 & 36 & 37 & 38 & 39 \end{bmatrix}$$

追加された最初の行は **InitialValues** 行列の行 0 の値に、追加された 2 番目の行は **InitialValues** 行列の行 1 の値に、追加された 3 番目の行は **InitialValues** 行列の行 2 の値にそれぞれ設定されます。**MatrixOut** は次のようになります。

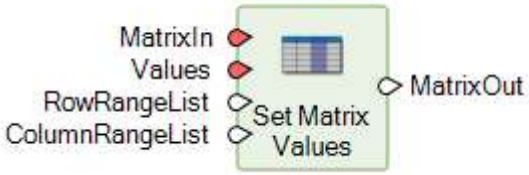
$$\begin{bmatrix} 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\ 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\ 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\ 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\ 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\ 11 & 12 & 13 & 14 & 15 & 16 & 17 & 18 & 19 \\ 21 & 22 & 23 & 24 & 25 & 26 & 27 & 28 & 29 \\ 31 & 32 & 33 & 34 & 35 & 36 & 37 & 38 & 39 \end{bmatrix}$$

Resize Table



テーブルの行数を調整（増減）します。InitialValues ポートは入力としてテーブルを受け取るため、この演算子を使用すると、複数のテーブルをまとめて追加できます。

Set Matrix Values



この演算子の目的は、既存の行列を取得し、その行列の特定のセルを、ユーザーが指定した値で変更することです。

RowRangeList または **ColumnRangeList** のみが指定されている場合（1 つ以上の行のすべての列または 1 つ以上の列のすべての行のセルを設定する場合）、**Values** に行列を指定できます。**RowRangeList** のみが指定されている場合、**Values** に指定する行列には、**MatrixIn** と同じ数の列が含まれている必要があります。行は、単一行でも、**RowRangeList** で指定されている行と同じ数の行でもかまいません。単一行が含まれている場合、**RowRangeList** で指定されているすべての行がその単一行で埋められます。**ColumnRangeList** のみが指定されている場合、**Values** に指定

する行列には、**MatrixIn** と同じ数の行が含まれている必要があります。列は、単一列でも、

ColumnRangeList で指定されている列と同じ数の列でもかまいません。単一列が含まれている場合、**ColumnRangeList** のすべての列がその単一列で埋められます。

RowRangeList と **ColumnRangeList** は、どちらも 0 から始まるインデックスです。つまり、最初の行が行 0、2 番目の行が行 1 になります（以降も同様）。

5 行 9 列の **MatrixIn** の使用例を次に示します。

$$\begin{bmatrix} 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\ 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\ 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\ 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\ 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \end{bmatrix}$$

- **RowRangeList** を 1:1,3:4（3 行）、**ColumnRangeList** を 2:4（3 列）に設定すると、1,2、3,3、4,4 のセルが **Values** に設定されます（Values はスカラーである必要があります）。**Values** が-1 の場合、**MatrixOut** は次のようになります。

$$\begin{bmatrix} 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\ 1 & 1 & -1 & 1 & 1 & 1 & 1 & 1 & 1 \\ 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\ 1 & 1 & 1 & -1 & 1 & 1 & 1 & 1 & 1 \\ 1 & 1 & 1 & 1 & -1 & 1 & 1 & 1 & 1 \end{bmatrix}$$

- **RowRangeList** が 2:4 で、**ColumnRangeList** が指定されていない場合は、行 2、3、4 のすべてのセルが **Values** に設定されます。**Values** には、スカラー、1 行 9 列の行列、または 3 行 9 列の行列を指定できます。

  Values がスカラーの場合、行 2、3、4 のすべてのセルがその値に設定されます。**Values** が-1 の場合、**MatrixOut** は次のようになります。

$$\begin{bmatrix} 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\ 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\ -1 & -1 & -1 & -1 & -1 & -1 & -1 & -1 & -1 \\ -1 & -1 & -1 & -1 & -1 & -1 & -1 & -1 & -1 \\ -1 & -1 & -1 & -1 & -1 & -1 & -1 & -1 & -1 \end{bmatrix}$$

- **Values** が次のような 1 行 9 列の行列の場合、

$$\begin{bmatrix} 3 & 5 & 7 & 9 & 11 & 13 & 15 & 17 & 19 \end{bmatrix}$$

  行 2、3、4 の列 0 は、**Values** 行列のセル 0,0 の値に設定され、行 2、3、4 の列 1 は、**Values** 行列のセル 0,1 の値に設定されます（以降も同様）。**MatrixOut** は次のようになります。

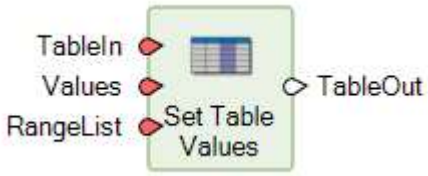
- **Values** が次のような 3 行 9 列の行列の場合、

$$\begin{bmatrix} 11 & 12 & 13 & 14 & 15 & 16 & 17 & 18 & 19 \\ 21 & 22 & 23 & 24 & 25 & 26 & 27 & 28 & 29 \\ 31 & 32 & 33 & 34 & 35 & 36 & 37 & 38 & 39 \end{bmatrix}$$

行 2 が **Values** 行列の行 0 の値に、行 3 が **Values** 行列の行 1 の値に、
行 4 が **Values** 行列の行 2 の値にそれぞれ設定されます。**MatrixOut** は次のようになります。

$$\begin{bmatrix} 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\ 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\ 11 & 12 & 13 & 14 & 15 & 16 & 17 & 18 & 19 \\ 21 & 22 & 23 & 24 & 25 & 26 & 27 & 28 & 29 \\ 31 & 32 & 33 & 34 & 35 & 36 & 37 & 38 & 39 \end{bmatrix}$$

Set Table Values



Set Table Values は、テーブルの指定された行の値を設定します。

RangeList で同じ行番号が複数回指定されている場合、テーブルのその行の値が毎回設定されます。つまり、**Values** がテーブルの場合、**TableOut** のその行の値は、**RangeList** でその行が最後に指定されたときに設定されていた値になります。たとえば、**TableIn** が[83,208,180,96,45,234]、**RangeList** が[1:3,1:1]、**Values** が[34,27,160,69]の場合、**TableOut** は[83,69,27,160,45,234]になります。

Sort Items

リストまたはテーブルを取得し、値のリストまたはテーブルとインデックス（0 から開始）のリストを作成します。これらは指定された**順序**（昇順/降順）で並べ替えられます。

次に例を示します。

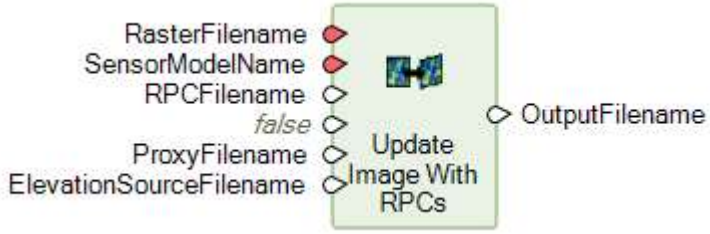
- 昇順。**DataIn** が[15,12,17,13]の場合、**DataOut** は[12,13,15,17]、**Indices** は[1,3,0,2]になります。
- 降順。**DataIn** が[15,12,17,13]の場合、**DataOut** は[17,15,13,12]、**Indices** は[2,0,3,1]になります。

値のセットを値の別のセットと同じ方法で順序付けることができるように、出力インデックスは Arrange Items 演算子と共に使

用されます。たとえば、2 つのテーブルがあり、1 つはクラス名で構成され、もう 1 つはそれらのクラス名に関連付けられたヒストグラム値で構成されているとします。Class Names テーブルが英数字順に並べ替えられている場合、ヒストグラム値も対応するクラス名に対して正しく並べ替えられるように、

この演算子によるインデックス出力を Arrange Items 演算子への RangeList 入力として使用して、Histogram テーブルを再編成できます。

Update Image with RPCs

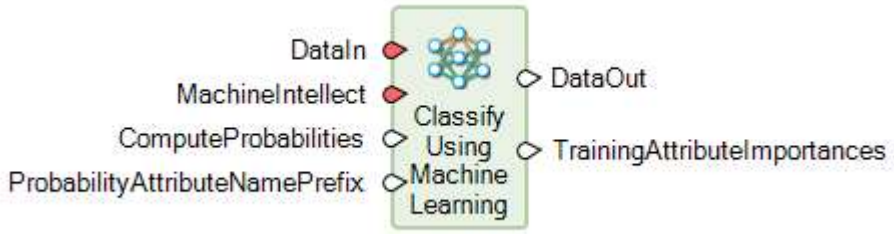


一部の画像形式リーダーは、関連する有理多項式係数（RPC）情報を自動的には認識しません。この場合、ERDAS IMAGINE がその情報を使用してデータを正確にジオリファレンスできるように、ユーザーが画像の RPC 情報を手動で幾何学的に校正（更新）する必要があります。この演算子は、RasterFilename と SensorModelName を使用して RPC ファイルを見つけ、これを使用して画像を更新します。

オプションの RPCFilename は、この演算子がファイルの自動検索に失敗した場合の入力として提供されています。

更新された演算子

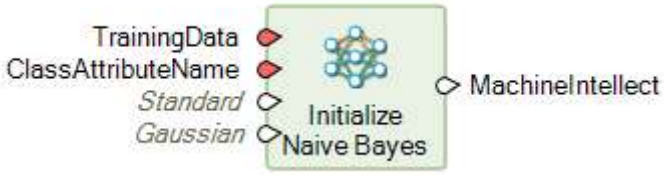
Classify Using Machine Learning



TrainingAttributeImportances と呼ばれる新しい出力ポートが追加されました。この演算子を実行すると、このポートによって、分類に使用される属性の名前と分類における各属性の重要度が含まれたディクショナリが生成されます。これらの値の範囲は 0～1 で、すべてのトレーニング属性の重要度の合計は 1 に定義されています。MachineIntellect がこの出力測定をサポートしていない場合は、すべての重要度が 1/<トレーニング属性の数>になります。

重要度の値は、分類の成功に寄与する最も重要な入力変数を特定する際に非常に役立ちます（さらに重要なのは、重要ではない変数を特定して後の分類から除外できるため、分類プロセスが効率化されます）。

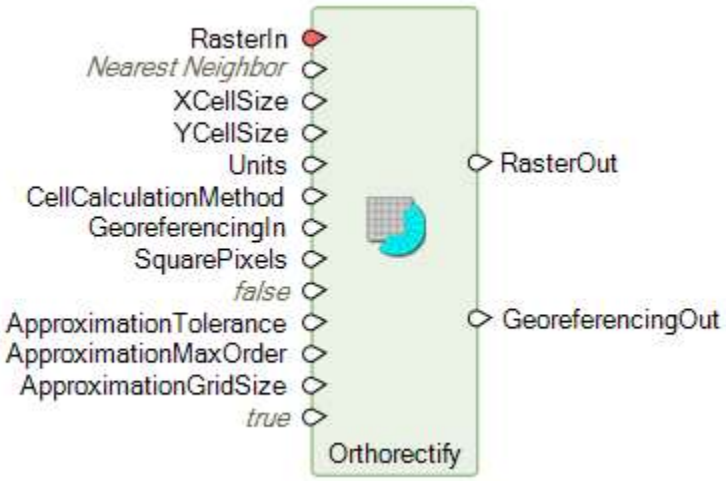
Initialize Naïve Bayes



この演算子は、Classify Using Machine Learning 演算子を使用してデータを分類する際の入力として使用される単純ベイズ分類器を定義し、
トレーニングします。

TrainingAttributesScaling と呼ばれる新しい入力ポートを使用して、トレーニング属性値を同様の範囲にスケーリングできます。スケーリングにより、トレーニングの速度と分類の精度が向上する可能性があります。

Orthorectify



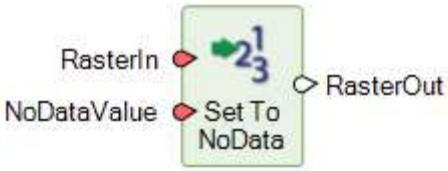
ラスター ストリーム内のデータは、幾何補正されるのではなく、ジオリファレンス可能な場合があります（古い言い方をすると、データは投影座標系に合わせて修正されるのではなく、2D または 3D 幾何モデルで幾何学的に校正されます）。通常の状況では、Spatial Modeler はジオリファレンス可能な状態を維持しますが、一部のワークフローでは、ジオリファレンス可能なラスターを幾何補正された状態で保持する必要があります。Orthorectify 演算子がこの役割を果たします。

ERDAS IMAGINE 2020 では、これまで Warp 演算子を使用する必要があった機能を組み合わせるために、Orthorectify 演算子が多数の新しいポートで更新されました。

- CellCalculationMethod
- AllowApproximation
- ApproximationTolerance
- ApproximationMaxOrder
- ApproximationGridSize

- UsePyramids

Set to NoData



NoDataValue 入力ポートが、入力としてラスターを受け入れるようになりました。これは、ラスター レイヤーを使用して別のラスター レイヤーをマスクする場合に役立ちます。

NoDataValue への入力がスカラーの場合、NoDataValue ポートで指定された値と一致するすべてのピクセル値が出力ラスター ストリームで NoData としてマークされるように、入力ラスター ストリームがフィルター処理されます。

NoDataValue への入力がラスターの場合、そのラスター内の NoData としてマークされているピクセル位置が、出力ラスター ストリームで NoData としてマークされます。NoDataValue ラスターのラスター範囲外の領域は NoData と見なされます。

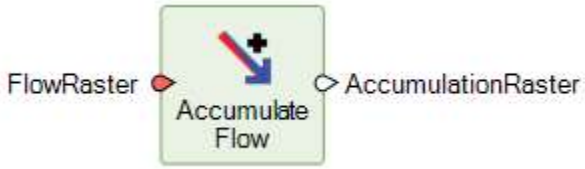
すでに NoData としてマークされている入力ラスター ストリーム内のピクセルは、NoData としてマークされたままになります。NoData としてマークされたピクセルの元の値は保持されません。

共有演算子

以下の演算子は、IMAGINE Advantage、IMAGINE Professional、GeoMedia Advantage、GeoMedia Professional のライセンス ユーザーによる使用が許可されています。

これらの演算子を使用する空間モデルは、IMAGINE Essentials または GeoMedia Essentials を使用して実行することはできません。

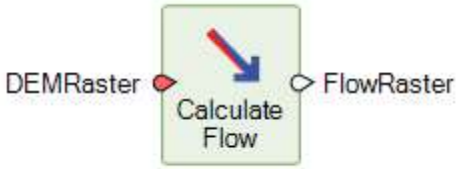
Accumulate Flow



Accumulate Flow 演算子は、水文解析に使用されるグリッド演算子群に含まれます。この演算子は FlowRaster を取得し、サーフェス全体の累積流量を計算します。

Accumulate Flow 演算子によって生成される AccumulationRaster には、各ピクセル値がそのピクセルへの流れに寄与するピクセルの総数を示すデータが含まれています。値がゼロのピクセルは、源流ピクセル（流入がなく、流出のみがあるピクセル）を示します。値が NoData のピクセルは流れがないことを示します。AccumulationRaster を水文解析ワークフローの一部として使用して、河川/河川網を特定したり、流域（集水域）を見つけるために使用できる排水口を特定したりできます。

Calculate Flow



Calculate Flow 演算子は、排水網と流域を識別するための一連の演算子の一部です。Calculate Flow は、数値標高モデル（DEM）などの連続する地表高度データのラスターで
動作します。この演算子によって生成される FlowRaster の各ピクセル値は、流出が地形上を流れる方向（実際には最急勾配方向）を表します。

ピクセルごとに、水平距離と垂直距離の両方を考慮して、ピクセルの中心と 8 つの隣接ピクセルの中心を結ぶ線分の勾配が計算されます。ピクセルの中心と、直接隣接する 4 つのピクセルの中心との間の水平距離は、ピクセル解像度に等しくなります。ピクセルの中心と、斜めに隣接する 4 つのピクセルの中心との間の水平距離は、ピクセル解像度の 2 倍の平方根に等しくなります。

流出は最も急な下り勾配の方向に流れると想定されています。「タイ」が許可されます。つまり、流出は複数の方向に流れることができます。結果のピクセル値は流れの方向を示します。

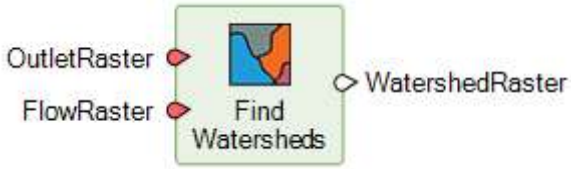
水文解析のために、まず、DEMRaster で Fill Depressions 演算子を実行して窪地のないサーフェスを作成する必要があります。この窪地のないサーフェスを、Calculate Flow 演算子への入力 DEMRaster として使用すると、不明瞭な流れのない FlowRaster が生成されます。この新しい FlowRaster は、Accumulation Flow 演算子への入力として使用できます。

Fill Depressions

Fill Depressions 演算子は、水文解析に使用されるラスター演算子群に含まれます。この演算子は、排水網と流域を識別するための一連のラスター演算子の一部として使用できます。

Fill Depressions は、数値標高モデル（DEM）などの連続する地表高度データのラスターで
動作します。サーフェスの小さな窪地が取り除かれた FilledRaster が生成されます。

Find Watersheds



水文解析では、流域（集水域）は、すべての水（降雨、細流、河川など）が共通の出口に流出する土地の領域と定義されます。流域は、1 つの貯水池または 1 つの河川区間に流れ出る土地の領域のように小規模な場合もあれば、

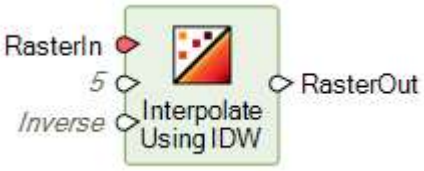
主要河川の河口に流れ出る土地の領域のように大規模な場合もあります。Find Watersheds 演算子は、水文解析に使用されるラスター演算子群に含まれます。この演算子では、FlowRaster を使用して、OutletRaster によって識別された共通の流出口に水が流れ出る流域を見つけます。

FlowRaster には、各セルの下り排水流方向を示すデータが含まれている必要があります。

OutletRaster には、流域を見つけるための共通の流出口を一意に識別するデータが含まれています。流域の共通の流出口を定義するピクセルには、同じ整数値を割り当てる必要があります。OutletRaster では、複数の流域の共通の流出口を定義することができますが、それぞれに一意の整数値を割り当てる必要があります。流域の流出口を定義しないピクセルはすべて NoData に割り当てる必要があります。OutletRaster では、細流または河川の河口にあるピクセルの単一または小規模のセット、河川網または河川区間を定義するピクセルの線形セット、あるいは不明瞭な流れのゾーンを定義するピクセル群として共通の流出口を定義できます。

Find Watersheds 演算子によって生成された WatershedRaster には、OutletRaster で定義された、一意に識別された共通の流出口ごとに見つかった流域を示すデータが含まれています。流域を定義するピクセルには、関連する共通の流出口ピクセルと同じ整数値が割り当てられます。流域に割り当てられていないピクセルは、すべて NoData に設定されます。

Interpolate Using IDW



Interpolate Using IDW は、逆距離加重法（IDW）アルゴリズムを使用して不完全なデータから連続ラスター データ セットの作成を試みる補間関数を実行します。値を持つ隣接ピクセルに基づいて、NoData の位置の値が計算されます。

この処理は、等高線やギャップのあるリモート センシング画像などの半連続データに最適です。独立標高点、地質調査データ、クラスタ化されたデータ、ランダム ポイントなどの非常にまばらなポイント データの場合、クリギング処理を適用して連続データセットを補間します。次のシナリオを処理する場合に、Interpolate Using IDW を使用してください。

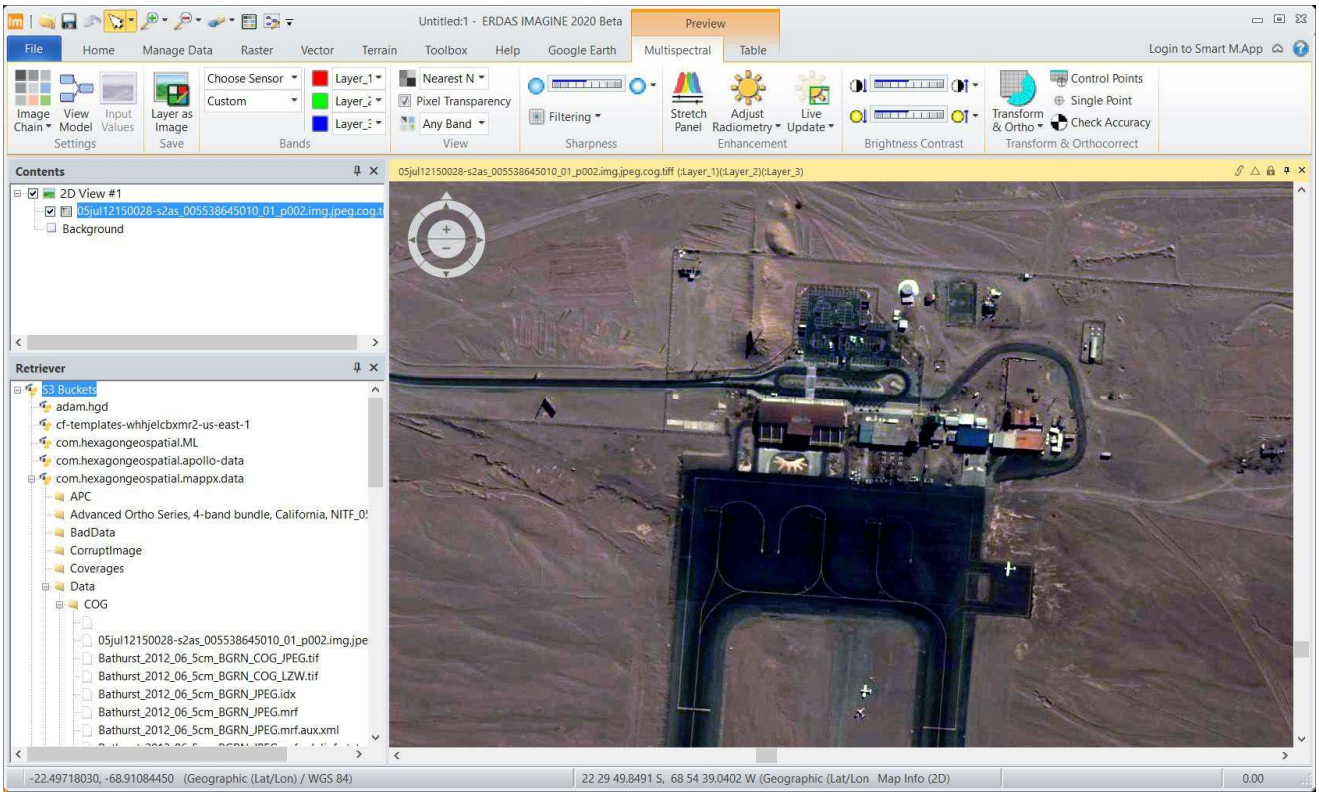
- 高度密度や一定間隔のデータ ポイント（標高データ、気温データ、降雨データ、連続的に変化するサーフェスからのデータなど）の場合
- 衛星データ、航空写真モザイク、または数値標高モデル（DEM）モザイクの小さなギャップを埋める場合
- 元のデータの正確さに対する信頼度が低い場合
- 等高線または稜線および流路データから DEM を作成する場合

形式のサポート

Cloud Optimized GeoTIFF

ERDAS IMAGINE 2020 では、[Retriever]ペインから Amazon S3 パブリックおよびプライベート クラウド ストレージ サービスにアクセスできます。これらのサービスを介して使用する最も効果的な形式の 1 つが、Cloud Optimized GeoTIFF（COG）形式です。

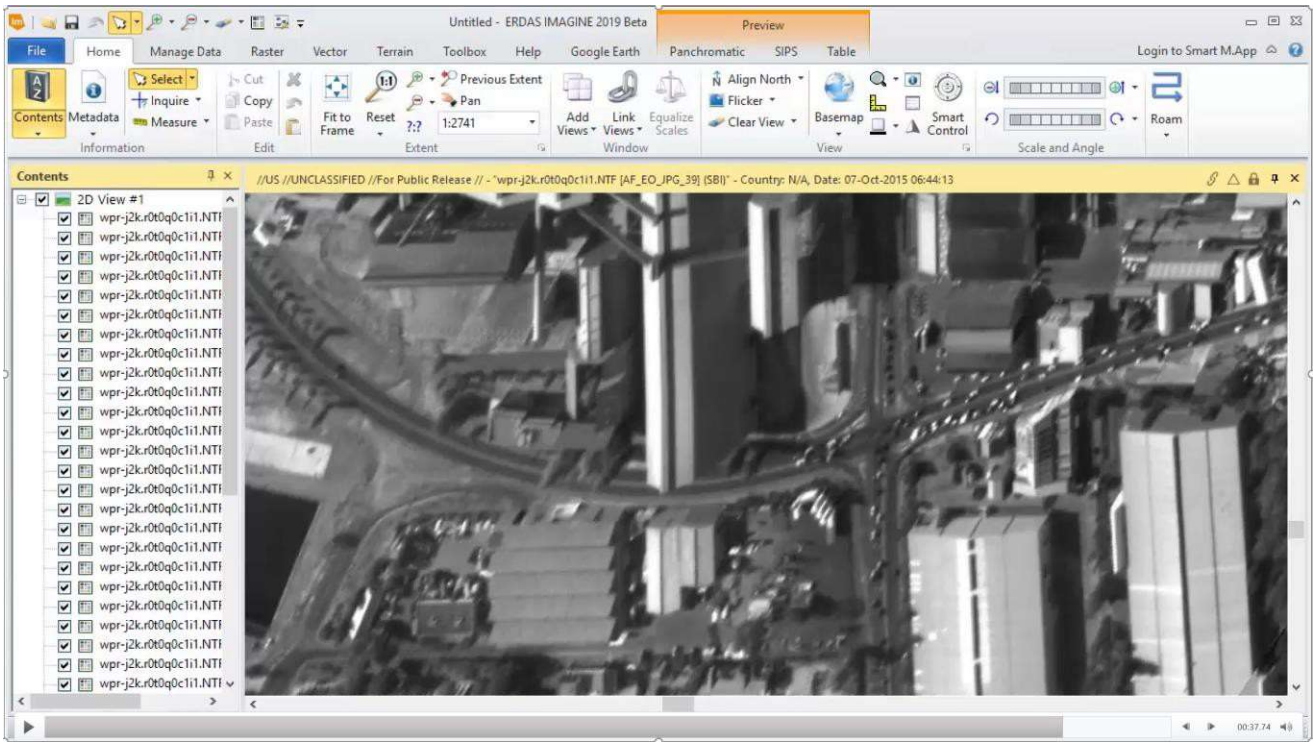
この方法でアクセスされるデータは、Spatial Model Editor で使用したり、画像チェーンを使用して表示したりできます。



MIE4NITF

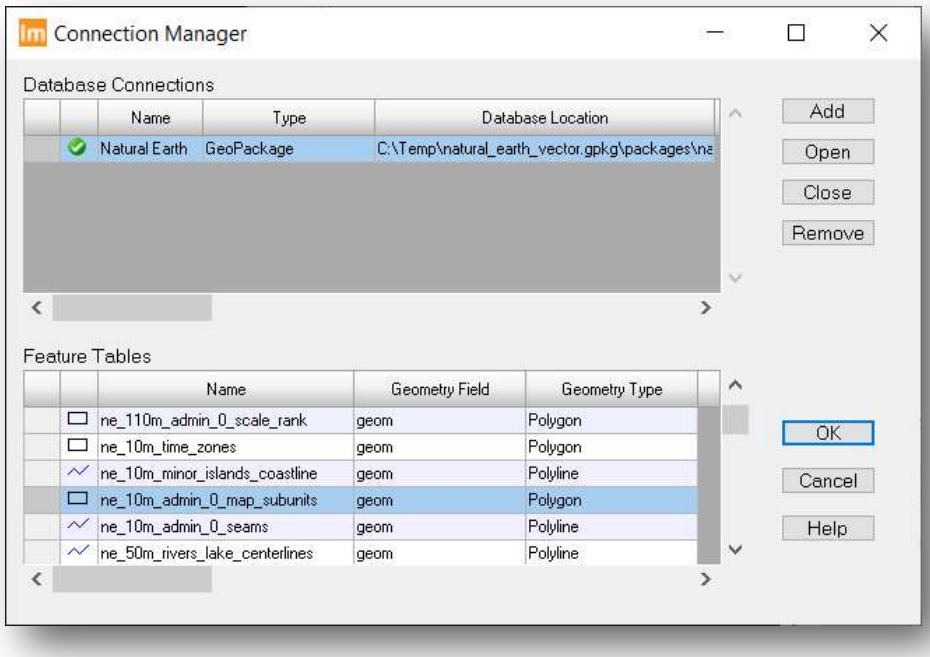
時系列データセットが、MIE4NITF 標準で保存および提供されるようになりました。これは、NITF で保存された数百、数千の個々の画像フレームで構成できます。

ERDAS IMAGINE 2020 は、時系列を「再生」し、個々のフレームを開いてさらに活用できるようにするために、複数の MIE4NITF フレームをフリッカー ツールなどのツールで開くことができるように強化されています。



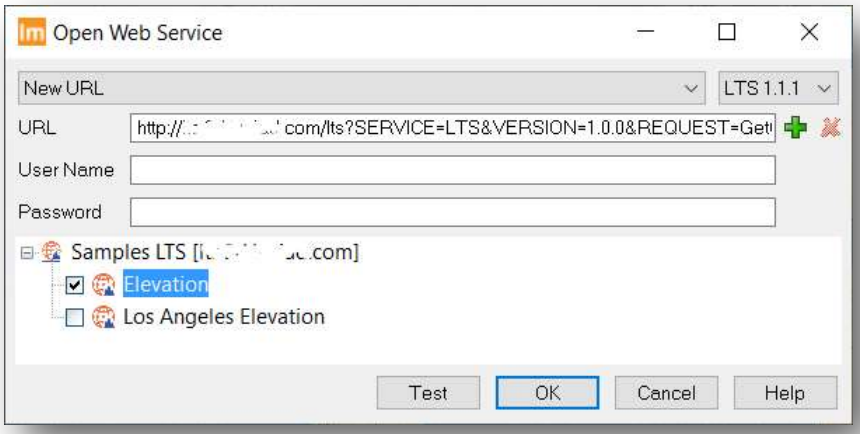
GeoPackage

Spatial Modeler と画像チェーンでは、一般的な GeoPackage 形式で保存されたラスター データを読み取ることができます。Spatial Modeler から、ベクター フィーチャーにアクセスすることもできます。



Luciad Terrain Services

オルソ補正や他の目的に使用できる標準のラスター データ ソースとして、LuciadFusion の Luciad Terrain Services を ERDAS IMAGINE で使用できます。



NetCDF

Spatial Modeler と画像チェーンでは、NetCDF 形式のラスター データを読み取ることができます。

WMS の表示の最適化

ERDAS IMAGINE の 2D View の表示動作は、主にソース データからのタイルの取得に基づいています。（2D View の範囲よりも大きい範囲をカバーする）これらのタイル要求は、必要な範囲全体をカバーするタイルが 1 つだけ返されることを求めているときに、WMS サーバーの問題を引き起こすように思われます。

そのため、ERDAS IMAGINE 2020 では、すべての WMS データ レイヤー タイプで使用するための別の表示モード/オプションが導入されました。このオプションは、リボン インターフェイスの[Continuous Roaming]というチェックボックス ボタンとして表示され、デフォルトでオフ（新しい動作）に設定されています。

このチェックボックスをオンにすると、WMS サーバーに対する要求の対象がビューの範囲ではなくタイルになります。このモードをオンにする利点は、範囲をパンまたはズームしながら（たとえば、マウスの中央ボタンを押したままデータをドラッグしながら）タイル要求を送信し、データを画面にレンダリングできることです。欠点は、ビューの範囲を埋めるまでの全体的な時間が長くなる可能性があることです。

これに対して、このモードがオフ（新しい動作）の場合、データ要求は現在のビューの範囲のみが対象となります。この場合、データが返されてレンダリングされるまでの時間がタイルの場合よりも短縮されます。ただし、欠点は、要求を送信できるのが、ローミング/ズーム アクションが停止しているとき（パン中にマウスの中央ボタンを離したときや、Auto Roam モードが停止または一時停止されているときなど）に限られることです。そのため、データがアクティブに「移動」されている間、マウスを離すまで前のデータ範囲の周りが黒くなります。しかし、WMS レイヤーの場合、一般にパフォーマンスが向上します。

ERDAS IMAGINE - 全般

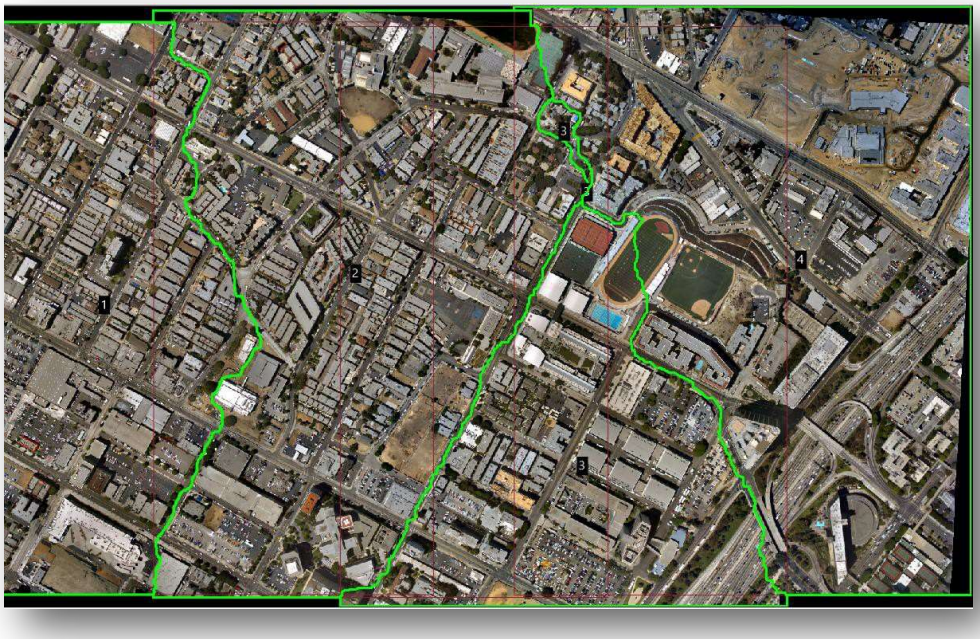
画像チェーンの印刷

画像チェーンを使用して表示されている画像を地図構成に含め、印刷デバイスに送信し、[Send To…]操作（[Send to PowerPoint]、[Send to JPEG]、[Send to Geospatial PDF]など）に含めることができるようになりました。

最適なシームラインの生成

シームラインの生成は、モザイク化ワークフローでシームレスな画像モザイクを作成するための非常に重要なステップです。モザイク化される画像には、通常、放射測定の不整合や未解決の幾何学的なずれがあります。シームラインの生成は、作成されたモザイクがシームレスに見えるように、放射測定の不整合や大きなずれがある領域を回避することを目的としています。

上記の目的を果たすために、グラフ カット エネルギー最小化フレームワークを使用する新しいシームライン生成オプションがMosaicPro に追加されました。ピクセル値と勾配は、画像間のオプションのシームラインを見つけるために使用されるコスト関数およびグラフ カットとして使用されます。

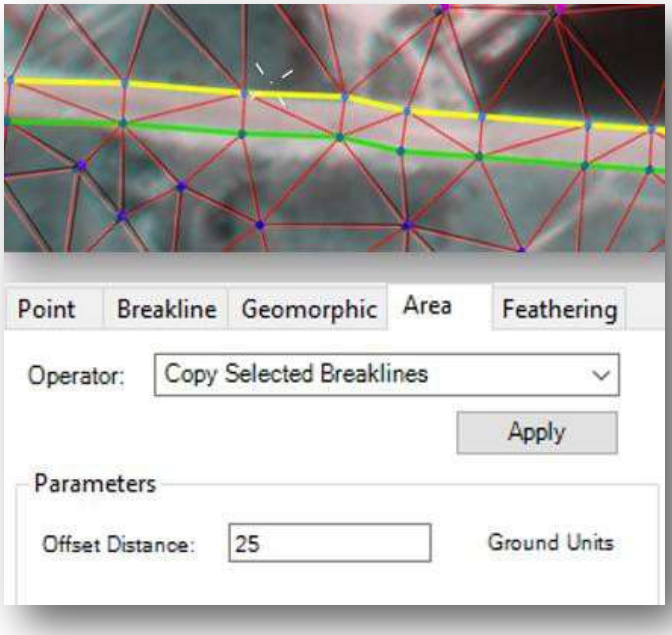


3Dconnexion SpaceMouse Pro

Viewplex ベースのステレオ ビューアー（Stereo Point Measurement ツール、Terrain Editor、ORIMA、PRO600）に、デジタル化デバイスとして 3Dconnexion SpaceMouse Pro のサポートが追加され、入力デバイスの選択肢が増えました。

選択したブレークラインのコピー

既存のブレークラインをコピーし、選択したブレークラインからの指定したオフセットにコピーを配置できる新しいブレークライン編集機能が Terrain Editor に導入されました。この機能には、Terrain Editor の[Terrain Editing]パネルにある[Operator]ドロップ ダウン メニューからアクセスできます。



ブレークラインの頂点の編集

ブレークライン頂点編集機能が強化されました。質量点の編集と同様に、ブレークラインの頂点を編集できるようになりました。頂点が属するブレークラインを選択する必要はなくなりました。

ブレークライン編集時の等高線の動的更新

ブレークラインの編集中に、等高線が動的に更新されるようになりました。これにより、ユーザーは現在行っている編集の効果のフィードバックを即座に得ることができます。ERDAS IMAGINE 2020 より前では、等高線はポイントの編集中には動的に編集されましたが、ブレークラインの編集時はブレークラインの編集が完了するまで更新されませんでした。この更新により、ポイントおよびブレークラインの編集中に、等高線が動的に更新されます。

スタイル ライブラリの一貫した場所

ERDAS IMAGINE 2020 では、各「ハイブ」（$PERSONAL、C:/ProgramData/ERDAS/ERDAS IMAGINE 2020、$IMAGINE_HOME）内の etc ディレクトリの関連するサブディレクトリでのみ、スタイル ライブラリが検索されるようになりました。ソフトウェアは、$PERSONAL、etc、または etc の外部のサブディレクトリ（$IMAGINE_HOME/Colors や$PERSONAL/LineStyles など）を直接参照しなくなりました。

- 矢印のスタイル：etc/Arrows
- 色：etc/Colors
- 塗りつぶしのスタイル：etc/FillStyles
- 線のスタイル：etc/LineStyles
- 符号：etc/symbols
- テキストのスタイル：etc/TextStyles

カスタマイズされたスタイル ライブラリを古い場所のいずれかに保存している場合は、ERDAS IMAGINE 2020 以降で使用するために、それらを新しい場所に移動する必要があります。

システム要件

ERDAS IMAGINE

コンピューター/プロセッサー	64 ビット：Intel 64（EM64T）、AMD 64、または同等の CPU （マルチコア プロセッサーを強く推奨）
メモリ（RAM）	16 GB 以上を強く推奨
ディスク容量	• ソフトウェア – 6 GB • サンプル データ - 7 GB データ ストレージ要件は、地図作製プロジェクトによって異なります。1
オペレーティング システム [2、3]	• Windows 10 Pro（64 ビット）[4] • Windows Server 2016（64 ビット） • Windows Server 2019（64 ビット）
ソフトウェア	• OpenGL 2.1 以上（通常、サポートされているグラフィックス カードが付属 [5]） • Java Runtime 1.7.0.80 以上 - IMAGINE Objective には JRE が必要です。インストールおよび構成済みの JRE バージョン 1.7.0.80 以上を使用できます。 • Python 3.6.x または 3.7.x （Python は、必要に応じて Spatial Modeler で使用できます。） • Microsoft DirectX® 9c 以上 • .NET Framework 4.0 • GPU で NNDiffuse およびその他の演算子を高速化する場合は、倍精度（cl_khr_fp64）をサポートするデバイスを使用した OpenCL 1.2 • CUDA 機能を備えた NVIDIA カードをディープラーニングで使用することをお勧めします。
推奨グラフィックス カード	• NVIDIA® Quadro® K5200、K5000, K4200、K4000, K2200、K600, K420 [6]
ステレオ表示用 推奨モニター	• NVIDIA 3D Vision™ Kit に対応した 120 Hz（以上）の LCD モニター[7] または 3D PluraView system from Schneider Digital 7

周辺機器	すべてのソフトウェア インストールに次のデバイスが必要です。 • スクロール ホイール付き Windows 互換マウスまたは同等の入力デバイス • 印刷には Windows 対応のハードコピー デバイスが必要 [8] ソフトウェア セキュリティ（Hexagon Geospatial Licensing 2020）には、次のいずれかが必要です。 • イーサネット カード、または • ハードウェア キー用 USB ポート x1 高度なデータ収集には、次のいずれかのハンド コントローラーが必要です。[9] • TopoMouse™または TopoMouse USB™ • Immersion 3D マウス • MOUSE-TRAK • Stealth 3D（Immersion）、S3D-E タイプ、シリアル ポート • Stealth Z、S2-Z モデル、USB バージョン • Stealth V、S3-V タイプ（シリアル デバイスとして追加） • 3Dconnexion SpaceMousePro[10] • 3Dconnexion SpaceExplorer マウス [10] • EK2000 Hand Wheels • EMSEN Hand Wheels • Z/I マウス

ArcGIS および GeoMedia との相互運用性	• ERDAS IMAGINE は、GeoMedia 2018、または GeoMedia 2020 がインストールされているコンピューターに安全にインストールできます。ただし、最大限の互換性を確保するために、適合するバージョンをインストールすることを強くお勧めします。
	• ERDAS IMAGINE 2020 でライブ リンクを使用するには、GeoMedia 2020 が必要です。インストールの順序は問いません。
	• ERDAS IMAGINE は、* .mdb と*.gdb の両方の種類のパーソナル ジオデータベースと対話できます。
	• ERDAS IMAGINE は、ArcGIS® バージョン 10.6～10.7.1 がインストールされているコンピューターに安全にインストールできます。
	• ERDAS IMAGINE と IMAGINE Photogrammetry は、ArcGIS Server 10.6-10.7.1 ジオデータベース サーバー（ArcSDE）と対話できます。エンタープライズ ジオデータベースの読み込みや操作を行うには、以下が必要です。
	  ○ 適切なバージョンの ArcGIS for Desktop（バージョン 10.6～10.7.1）をインストールしてライセンスを取得する。または
	  ○ IMAGINE Geodatabase Support（ArcEngine 10.7 ベース）をインストールする（ライセンスは不要）。

データベース エンジン	• Postgre9.6 と PostGIS 2.3：PostGIS を使用して、GeoMedia フィーチャー（.sfp）を保存できます。 • Oracle Server 12c 12.2. 64-bit：Oracle Server 12c を使用して、Oracle GeoRaster（.ogr）（Oracle Spatial が必要）、SDE Raster（.sdi）（ArcGIS for Server が必要）、Oracle Spatial Features（.ogv）（Oracle Spatial が必要）、および GeoMedia フィーチャー（.ofp）を保存できます。 • Microsoft SQL Server 2017 64bit ：Microsoft SQL Server 2017 を使用して、GeoMedia フィーチャー（.sfp）を保存できます。

ERDAS IMAGINE のシステム要件に関する注意事項

[1] 通常、ディスク I/O は、地理空間データ処理において最も時間のかかるタスクです。高速のハード ディスクを使用すると、生産性が向上します。1 つのディスクからデータを読み込み、2 つ目のディスクに一時データを書き込み、3 つ目のディスクにデータを書き込むと、パフォーマンスが向上します。ディスク アレイは生産性を向上させますが、一部の RAID オプションではパフォーマンスが低下します。ネットワーク ディスク ドライブは、ネットワークの制限を受けます。

[2] サーバー オペレーティング システムは、IMAGINE Photogrammetry、ORIMA、ERDAS ER Mapper ではサポートされていません。

[3] IMAGINE Photogrammetry の 3D ステレオ表示と周辺機器の要件により、オペレーティング システムの選択肢が限られます。

[4] ERDAS ER Mapper は、Windows 8 ではサポートされていません。Windows 8.1 では実行可能と見なされています。

[5] Windows では、サポートされているすべてのグラフィックス カードに対応する汎用 OpenGL ドライバーが提供されています。ただし、これらのアプリケーションには、OpenGL に最適化されたグラフィックス カードとドライバーが推奨されます。

[6] 以前のバージョンの IMAGINE Photogrammetry と ORIMA で認定済みのグラフィックス カードも互換性がある可能性がありますが、現在のバージョンでは認定されていません。

[7] 以前のバージョンの IMAGINE Photogrammetry と ORIMA で認定済みのステレオ モニターも互換性がある可能性がありますが、現在のバージョンでは認定されていません。

[8] HP-RTL ドライバーが推奨されます。64 ビット版の Windows プリント サーバーには、64 ビットのプリント ドライバーが必要です。

[9] Stealth S-Mouse（S2-S モデル）と MOUSE-TRAK は、Stereo Analyst® for ERDAS IMAGINE でのみサポートされているハンド コントローラーです。

[10] 3Dconnexion マウスは、IMAGINE Photogrammetry でサポートされています。

Issues Resolved – ERDAS IMAGINE 2020 Update 1

Various Product Tiers

Issue ID	Summary	Description / How to Reproduce
IM-51400	ERDAS IMAGINE 2020 Crashes on 3D Line Measurement for Geographic Projected Point Cloud data	ERDAS IMAGINE 2020 b1339 crashes on 3D Line measurement for Point Cloud data which have Geographic Projection. Steps to Reproduce 1. Launch ERDAS IMAGINE and open specific Geographic point cloud data 2. Click Show 3D, a new 3D display will open and wait for the data to load 3. Select "Measure Line" and try to measure distance. Select the first point and then the second point. 4. After selection of the second point wait for few seconds, ERDAS IMAGINE will crash. !null-xform-from-geog-to-utm1.png|thumbnail! The same data set reprojected to a Projected coordinate system works fine in 3D Line measurement .
IM-51275	RSETs not used when built for a J2K NITF image which has subimage(s)	Input Image - NITF image using JPEG2000 compression and containing at least one subimage. Typically the subimage is a cloud layer. Problem: - generate RSETs using Create Image Pyramids operator (or ImageInfo) (ok) - the performance preference is ignored and the RSETs always begin at R1 - the processing takes a 2nd long pass. - the generated RSETs are not used by the 2D View. - ImageInfo > Pyramid Layer Algorithm still shows "JPEG2000 Wavelet Transform". If use the same dataset, but go out to .pyrx things are generally good. The .pyrx does not start at R1 and the .pyrx is being used by the 2D View.
IM-51276	Failed creating RRDs for NITF image	Replicated using a WorldView NITF image Make sure the "Pyramid Layer Generator" Preference is set to "Always use RRD..." Start ERDAS IMAGINE 2020 Home tab > Information group > Metadata pulldown > Edit Image Metadata Select the NITF image as input Click the Compute Pyramid Layers checkbox Click Options... Error: args Error: Unable to create unique proxy file. Image Command Tool exits.
IM-51348	New pyramids labeled "incorrect" when dropping NITF into 2DView with Preferences set to "all segments"	* Copy a NITF file locally. * Set the NITF "Drag/Drop Behavior" preference to "Open all segments in a single view." * Using imageinfo or imagecommand tool create pyramids for the NITF image. Set the Generator to PYRX (or RRD once IM-51276 has been fixed). Leave/set the Downsampling Method to Auto. * Drag and drop the NITF into a 2DView. There's a red "x" badge in the TOC, indicating that "Pyramid information is incorrect" and "Pyramids needs to be rebuilt for best performance." The .aux file for the NITF has RRDInfoList and RRDNamesList for the layers, but drag and drop with the NITF "Drag/Drop Behavior" preference set to "Open all segments in a single view." creates an .sbi file, and it doesn't seem to recognize that the pyramids are optimized.
IM-51347	Creating RSETs for NITF that's J2K compressed appears to "lose" its pyramids	* Copy NITF file locally. * Open the NITF in a 2DView. There's no warning/error badge on the layer in the TOC, so it appears to have optimized pyramids. * Close the image. * Open the image in imageinfo. It says the pyramid layer algorithm is JPEG 2000 Wavelet Transform. * Click on the sigma button to create RSETs for the NITF image. Turn on Compute Pyramid Layers. Set the Generator to any of the RSET options. Leave/set the Downsampling Method to Auto. Click OK. * Click "Yes" to the warning about existing pyramids (it's not really going to do anything, since they're internal J2K). * The pyramid layer algorithm now says Unknown Downsampling, which a little disconcerting. * Open the NITF in a 2DView. Now there's a red "x" badge in the Contents pane, indicating that "Pyramid information is incorrect" and "Pyramids needs to be rebuilt for best performance." * If you Correct the Alert, the badge goes away, but if you close ERDAS IMAGINE and restart it and open the NITF again, the red "x" badge is back.

IM-51341	Auto pyramid downsampling looks bad for RGB/LUT NITF	Using a NITF file which has an IREP of RGB/LUT: # Using either imageinfo or imagecommand tool create pyramids for the specified image # Set the Generator to any of the RSET options. Leave/set the Downsampling Method to Auto. # Display the image in a 2DView. It looks great. # Now fit to frame. It doesn't look the same–lots of black (transparent pixels). The same thing happens using Manage Data | Image | Pyramids & Statistics | Process Footprints and RSETs in 16.5.2 and 16.6.0. Same thing happens using the Create RSETs operator in 16.5.2.
IM-51527	Unable to create RSET for NITF that has negative ILOC values	Unable to create RSET for NITF that has negative ILOC values in ERDAS IMAGINE 2020. In 2018 the Create RSETs operator fails with error "Unknown error code - 0"
IM-51427	Error creating pyramids for multi-image TIFF	When running a Spatial Model that generates pyramid files for a multi-image TIFF the following errors occur: 22/10/19 17:31:30 SessionMgr(1476): ERROR: #909 from erdas::raster::PyramidManager::ValidatedRRDsWrite 22/10/19 17:31:30 SessionMgr(1476): ERROR: erdas::raster::PyramidManager::ValidatedRRDsWrite failed 22/10/19 17:31:30 SessionMgr(1476): ERROR: #897 from erdas::raster::PyramidManager::ValidatedRRDsWrite 22/10/19 17:31:30 SessionMgr(1476): ERROR: eimg_SSLayerInfoSet failed 22/10/19 17:31:30 SessionMgr(1476): ERROR: #23443 from eimg_SSLayerInfoSet 22/10/19 17:31:30 SessionMgr(1476): ERROR: No method found for modifying subsampled layers of c:/data/multipage_tif_example.tif(:Untitled_0_RGB~Layer_1) 22/10/19 17:31:30 SessionMgr(1476): ERROR: #909 from erdas::raster::PyramidManager::ValidatedRRDsWrite 22/10/19 17:31:30 SessionMgr(1476): ERROR: erdas::raster::PyramidManager::ValidatedRRDsWrite failed 22/10/19 17:31:30 SessionMgr(1476): ERROR: #897 from erdas::raster::PyramidManager::ValidatedRRDsWrite 22/10/19 17:31:30 SessionMgr(1476): ERROR: eimg_SSLayerInfoSet failed 22/10/19 17:31:30 SessionMgr(1476): ERROR: #23443 from eimg_SSLayerInfoSet 22/10/19 17:31:30 SessionMgr(1476): ERROR: No method found for modifying subsampled layers of c:/data/multipage_tif_example.tif(:Untitled_0_RGB~Layer_2) 22/10/19 17:31:31 SessionMgr(1476): ERROR: #909 from erdas::raster::PyramidManager::ValidatedRRDsWrite 22/10/19 17:31:31 SessionMgr(1476): ERROR: erdas::raster::PyramidManager::ValidatedRRDsWrite failed 22/10/19 17:31:31 SessionMgr(1476): ERROR: #897 from erdas::raster::PyramidManager::ValidatedRRDsWrite 22/10/19 17:31:31 SessionMgr(1476): ERROR: eimg_SSLayerInfoSet failed 22/10/19 17:31:31 SessionMgr(1476): ERROR: #23443 from eimg_SSLayerInfoSet 22/10/19 17:31:31 SessionMgr(1476): ERROR: No method found for modifying subsampled layers of c:/data/multipage_tif_example.tif(:Untitled_0_RGB~Layer_3) 22/10/19 17:31:31 SessionMgr(1476): ERROR: #8043 from edsc_HFATableCreate 22/10/19 17:31:31 SessionMgr(1476): ERROR: ehfa_ObjectWrite failed 22/10/19 17:31:31 SessionMgr(1476): ERROR: #7761 from ehfa_ObjectWrite 22/10/19 17:31:31 SessionMgr(1476): ERROR: ehfa_EntrySeek failed 22/10/19 17:31:31 SessionMgr(1476): ERROR: #4328 from eimg_DSCTableCreate 22/10/19 17:31:31 SessionMgr(1476): ERROR: edsc_TableCreateWithMethods failed 22/10/19 17:31:31 SessionMgr(1476): ERROR: #775 from edsc_TableCreateWithMethods 22/10/19 17:31:31 SessionMgr(1476): ERROR: TableCreate failed 22/10/19 17:31:31 SessionMgr(1476): erdas::sb_raster::StatsUtils::UpdateStatistics failed 22/10/19 17:31:31 eimg_AllStatsStackWrite failed 22/10/19 17:31:31 Error reported by function eimg_AllStatsWrite 22/10/19 17:31:32 eimg_TableCreate failed 22/10/19 17:31:32 edsc_TableCreateWithMethods failed 22/10/19 17:31:32 TableCreate

		failed It doesn't seem to matter whether PYRX, RRD, or RSETs is selected for the Generator–it always fails–but if left as Auto, it works.
IM-51536	Problems using SIPS downsampling to generate RSETS for SICD images	SICD images are large single blocked NITF files. Using the SIPS downsampling technique to make RSETs is stressing the memory constraints of the system.
IM-51454	RRD / SIPS pyramids for DTED Level 2 appears to have artifact problems	ERDAS IMAGINE 2020 64-bit b1339 Make a local copy of a DTED Level 2 file (no ancillary files, just the .dt2) Bring up ImageInfo and generate pyramids on the DTED using Auto / Auto (which should currently apply RRD / SIPS) Display Fit to Frame The upper left of the data looks odd - it appears a flat grey expanse with no variation
IM-51446	Can't auto-generate pyramids for a CADRG image	ERDAS IMAGINE 2020 64-bit b1339 Default Preferences Open a CADRG A.TOC image into a 2D View You will be prompted that "This Image does not have pyramid layers. Click 'Yes' for the pyramid layers to be computed. Click 'No' to not compute the pyramid layers." Click Yes Ignore for a second that the message pops up again (there's a separate bug on that) Another Error message pops up saying "Did not find metadata" ….and no pyramids are generated. Can't generate them in ImageInfo either. Works fine in ERDAS IMAGINE 2018 Update 2. If I use ImageInfo and manually select to create RRDs (rather than leaving it as Auto) I can generate RRDs successfully.
IM-51426	Crash creating RSETs for TIFF image	ERDAS IMAGINE 2020 exits when creating RSETs for a TIFF image. This worked fine using the Create RSETs operator in ERDAS IMAGINE 2018 Update 2.
IM-51282	ResampleProcess run failed in rrd generation	ERDAS IMAGINE 2020: Outputs from Orthorectification, Reprojection, etc were failing to generate RRD format pyramid files. The output images are okay but their rrd files are not created successfully. In the output folder, I can only see their partial rrd files (such as controlpoints_ikonosrpc_default.partial.rrd).
IM-50901	Resample process is producing rrd rather than pyrx (for u16 output)	Steps to reproduce: In ERDAS IMAGINE 2020 32bit or 64bit go to Raster Tab > Geometric Calibration > Orthorectify Without GCP > select a NITF and click OK. In Set Geometric Model > select NITF RPC and Click OK. In NITF RPC Model Properties dialog, click Apply. In Resample dialog, specify output file and click OK. Output file is created. Check output files and note that a .rrd was produced rather than the expected .pyrx
IM-51456	Can't create pyramids for certain HDF datasets	The Create Image Pyramid operator fails with certain HDF datasets that have multiple images stored in the file.
IM-51455	CADRG pyramid generation should default to PYRX / erdasbino3	ERDAS IMAGINE 2020 64-bit b1339 Current Auto behavior for generating pyramids would be PYRX, but ECW compression doesn't work well with this RGB data that has very limited colors. Perhaps the format should be RSETs (since it is a variant of NITF), but what downsampler should it default to ? SIPS might be a safe choice. But would MPD be appropriate since it is a "pseudo thematic" type of dataset? Probably needs testing. Results of tests shown below. PYRX / SIPS came out all black and RRD / MPD has missing blocks. RSET fails with "Spatial Model failed in CreateImagePyramidImpl. The error was "`anonymous-namespace'::produceLevel failed No images in this file!"." Of the "succesful" tests, PYRX / erdasbino3 looks best. But I'm not sure if we can trust that for "all" CADRG?
IM-50882	Abandoned lock file when creating hyperspectral pyramids	ERDAS IMAGINE 2020 64-bit b1292 See (33GB) hyperspectral .img file If you add this image to ImageInfo, click the Sigma icon, select to create pyramids Auto/Auto and stats with ignore 0 and OK. Eventually you get the message: Spatial Model failed in CreateImagePyramidImpl. The error was "g:/temp/resample.img.lock has been

		determined to be abandoned due to time since last modification". OK the dialog and you are returned to ImageInfo with no pyramids or stats. Session Log: 19/09/19 11:29:16 imageinfo; 19/09/19 11:29:16 C:/Program Files/Hexagon/ERDAS IMAGINE 2020/bin/x64URelease/imageinfo.exe 19/09/19 11:52:14 SessionMgr(19788): ERROR: #13610 from eimg_LayerStackClose 19/09/19 11:52:14 SessionMgr(19788): ERROR: CreateImagePyramid failed 19/09/19 11:52:14 SessionMgr(19788): ERROR: #13117 from `anonymous-namespace'::CreateImagePyramid 19/09/19 11:52:14 SessionMgr(19788): ERROR: RunWithMeter failed 19/09/19 11:52:14 SessionMgr(19788): ERROR: #199 from RunWithMeter 19/09/19 11:52:14 SessionMgr(19788): ERROR: c:¥work¥jenkins-home¥workspace¥v16.6-smsdk-x64release¥sources_modeler¥smprocesslib¥getmangledprocaddress.cpp failed 19/09/19 11:52:14 SessionMgr(19788): ERROR: #142 from c:¥work¥jenkins-home¥workspace¥v16.6-smsdk-x64release¥sources_modeler¥smprocesslib¥getmangledprocaddress.cpp 19/09/19 11:52:14 SessionMgr(19788): ERROR: HexGeo::SpatialModeler::Operator::Execute failed 19/09/19 11:52:14 SessionMgr(19788): ERROR: #1739 from HexGeo::SpatialModeler::Operator::Execute 19/09/19 11:52:14 SessionMgr(19788): ERROR: HexGeo::SpatialModeler::Operator::Execute failed 19/09/19 11:52:14 SessionMgr(19788): ERROR: #1739 from HexGeo::SpatialModeler::Operator::Execute 19/09/19 11:52:14 SessionMgr(19788): ERROR: HexGeo::SpatialModeler::Operator::Execute failed 19/09/19 11:52:14 SessionMgr(19788): ERROR: #1739 from HexGeo::SpatialModeler::Operator::Execute 19/09/19 11:52:14 SessionMgr(19788): ERROR: HexGeo::SpatialModeler::Operator::Execute failed 19/09/19 11:52:14 SessionMgr(19788): ERROR: #1739 from HexGeo::SpatialModeler::Operator::Execute 19/09/19 11:52:14 SessionMgr(19788): ERROR: HexGeo::SpatialModeler::Operator::Execute failed 19/09/19 11:52:14 SessionMgr(19788): ERROR: #1739 from HexGeo::SpatialModeler::Operator::Execute 19/09/19 11:52:14 SessionMgr(19788): ERROR: HexGeo::SpatialModeler::Operator::Execute failed 19/09/19 11:52:14 SessionMgr(19788): ERROR: #1739 from HexGeo::SpatialModeler::Operator::Execute 19/09/19 11:52:14 SessionMgr(19788): ERROR: HexGeo::SpatialModeler::Operator::Execute failed 19/09/19 11:52:14 SessionMgr(19788): ERROR: #1739 from HexGeo::SpatialModeler::Operator::Execute 19/09/19 11:52:14 SessionMgr(19788): ERROR: HexGeo::SpatialModeler::Operator::SetErrorMessage failed 19/09/19 11:52:14 SessionMgr(19788): ERROR: #2006 from HexGeo::SpatialModeler::Operator::SetErrorMessage 19/09/19 11:52:14 SessionMgr(19788): ERROR: Spatial Model failed in CreateImagePyramidImpl. The error was "g:/temp/resample.img.lock has been determined to be abandoned due to time since last modification".
IM-51452	Questionable behavior creating pyramids for NITF SNIP image	* Make a local copy of Unclassified NITF SNIP data ** The image is 256 x 3352 with 172 layers * Generate PYRX pyramids ** Takes (for me) about 4.5 minutes ** No .pyrx is created ** When you then open the NITF in the 2DView, it thinks pyramids are broken * Generate RSETs ** Takes (for me) over 3 minutes ** No RSETs are created ** When you then open the NITF in the 2DView, it thinks pyramids are (still) missing * Generate RRDs ** Takes (for me) over 15 minutes ** .rrd is created and has two levels: 128 x 1676 & 64 x 838 ** When you then open the NITF in the 2DView, it thinks pyramids are there and optimized (no badge)

IM-51535	Inconsistent pyramid generation for a JPEG 2000 encoded Sentinel-2	ERDAS IMAGINE 2020 64-bit b1339 Make a local copy of Sentinel-2 (S2*_*SAFE) image (no ancillary files) Start ImageInfo Load the Sentinel-2 (S2*_*SAFE) image (the directory one) Click the Sigma button Turn on Pyramid Generation and leave it at Auto Click OK You'll get an Attention dialog saying IMAGEINFO: Every layer in the file already has pyramid layers. If you retain existing pyramid layers, only pyramid levels which are missing or no longer meet the current performance threshold will be created. Would you like to remove the existing layers first? Click No You get a progress meter of "Executing Pyramid Layer Generation" (or similar) and it completes within a couple of seconds. Stats have been calculated with a Skip of 16 x 16. A .pyrx has been created of size 760KB and a similarly size .aux. The .pyrx seems to contain ECW data starting at 343 x 343 rows/columns HFA View of the .aux seems to indicate the recognition of the external .pyrx levels Quit ERDAS IMAGINE Delete the .aux and .pyrx files Start ERDAS IMAGINE Start ImageInfo Load the Sentinel-2 (S2*_*SAFE) image (the directory one) Click the Sigma button Turn on Pyramid Generation and leave it at Auto Click OK You'll get an Attention dialog saying IMAGEINFO: Every layer in the file already has pyramid layers. If you retain existing pyramid layers, only pyramid levels which are missing or no longer meet the current performance threshold will be created. Would you like to remove the existing layers first? Click Yes You get a progress meter of "Deleting ReducedLayers" "Executing Create Image Pyramid " (or something) and it slowly goes through a progress meter taking a minute or so. Stats have been calculated with a Skip of 1 x 1. A .pyrx has been created of size 760KB and a similarly size .aux. The .pyrx seems to contain ECW data starting at 343 x 343 rows/columns HFA View of the .aux DOES NOT indicate the recognition of the external .pyrx levels Should there really be a difference in behavior?
IM-51602	"Pyramids needs to be rebuilt for best performance" alert after building pyramids for SPOT7	ERDAS IMAGINE 2020 64-bit b1347 Make a local copy of the SPOT7 DIMAP image directory (no ancillary files created by ERDAS IMAGINE) Start ERDAS IMAGINE Start ImageInfo Load the DIMAP .xml Click the Sigma button Turn on Compute Pyramid Layers (if not already on) OK Once complete display the DIMAP .xml in a 2D View Note the Alert badge which has correction "Pyramids needs to be rebuilt for best performance"
IM-51317	Predict Using Machine Learning operator missing from UI	The Predict Using Machine Learning operator missing from the Spatial Modeler 2020 editor.
IM-51257	Error of failed to delete temp file on removing the model containing Grow Features operator	ERDAS IMAGINE 2020 32bit/64bit Run/Preview a spatial model designed to use the Grow Features operator and then try to remove the model from the viewer. Generates an Error
IM-51278	Preview of all 3D Features is Broken	ERDAS IMAGINE 2020: Run a Spatial Model Editor Preview for either Filter By Geometries or Intersect Features operators. Notice that the preview fails with an error message "Spatial Model failed in Coordinate Transformation. The error was "Input Features not set properly.". Instead of Preview, if we try to create an output then it works fine and the output can be displayed properly in the viewer. Please see the attached screenshot of the error.
IM-51033	Images calibrated with small DEM display data outside DEM extent	Open a DigitalGLobe NITF image that is associaited to a DEM which has a smaller spatial extent than the image in a 2D View, oriented to map: Fit to Frame and then zoom out a little and you will start to see imagery that is beyond the extent of the DEM used to calibrate the image show up. They should not.

IM-51207	Subpixel - Signature Evaluation / Refinement completely fails in 64-bit, while 32-bit gives an Error message but Output is created	ERDAS IMAGINE 2020 Description - In ERDAS IMAGINE 2020 64-bit, the Signature Evaluation process fails. However, in ERDAS IMAGINE 2020 32-bit, the process gets completed and an output file gets created, but an error message is displayed at the end of processing. Steps to reproduce 1.Launch 64-bit/32-bit ERDAS IMAGINE 2020 and click Raster tab 2.Click Subpixel and select Signature Evaluation/Refinement 3.Provide input and output data path and click OK 4. For 64-bit error message will be displayed, refer the attached image and Session log in the comment section. For 32-bit the process will complete but an error message will be displayed at the end of processing
IM-51305	Performing triangulation under Classic Point Measurement crashes	This is reproducible only on 32bit ERDAS IMAGINE 2020 1) Launch ERDAS IMAGINE -> File -> Open -> Photogrammetric Project 2) Open laguna.blk 3) Under Photogrammetry tab -> Point Measurement -> launch Classic Point Measurement tool 4) Run APM -> Now try to perform Triangulation (refer the attached Image) Observe that ERDAS IMAGINE crashes while trying to perform triangulation
IM-51206	Subpixel - Automatic Signature Derivation fails and gives an Error message	ERDAS IMAGINE 2020 64-bit Description - The Automatic Signature Derivation process fails and gives an error message. Steps to reproduce 1.Launch 64-bit ERDAS IMAGINE 2020 and click Raster tab 2.Click Subpixel and select Automatic Signature Derivation 3.Provide input and output data path and click OK 4. An error message will be displayed, refer the attached image and Session log in the comment section.
IM-51423	Model containing Add Attributes By Order throwing error related to coordinate transformation.	ERDAS IMAGINE 2020 Spatial Model containing Add Attributes By Order throwing error related to coordinate transformation.
IM-51372	Publisher Information shown as unknown in ER Mapper Vector Support setup.exe installer	1.Download ER Mapper Vector Support installer from [link|http://download.hexagongeospatial.com/search?lang=en&product=74ad85a4d14b4836abfc6ae2c6f19529&utm_source=pardot.com] 2.Try to install ER Mapper Vector Support using setup.exe in extracted ZIP folder 3.Observe Publisher Information shown as Unknown
IM-51208	Projection information in the Grow Features operator output is incorrect for input SeedLocations of type Polyline/Polygon	ERDAS IMAGINE 2020 : In ERDAS IMAGINE run a Spatial Model which attempts to use the Grow Features operator. Now display the output file on top of input raster, observe that output shp file doesn't overlap with input raster, as the projection information is incorrect
IM-51209	Run/Preview fails for SeedLocations as Multipoint/Single point feature for Grow Features Operator	ERDAS IMAGINE 2020 Run or Preview a Spatial Model which uses Grow Features where a Multipoint Feature is given for SeedLocations port. Run/Preview displays a warning message on the Feature Output/Preview operator that, 'No feature available for Output/Preview. On running the model, Output shp file is created which is invalid, as on displaying, following dialog shows up stating: Error-'Nonsense Clip Window', Warning- 'Reached the Zooming limit, preventing overflow with 'long'' Error -'Invalid World Coordinate System'
IM-51342	Incorrect json output for CRS and image name strings	This only happens in 32-bit ERDAS IMAGINE 2020. Output in x64 IMAGINE 2020 is good.
IM-51311	Viewshed - Clicking on Viewshed fails to open/launch the tool dialog	ERDAS IMAGINE 2020 64-bit Steps to Reproduce 1.Launch 64-bit ERDAS IMAGINE 2020 2. Open a DEM in 2D View from the given path 3. Click Terrain > Viewshed - the tool will not launch and there is no error message. Ideally, Viewshed tool dialog must open, as it does in 32-bit ERDAS IMAGINE 2020. IMAGINE Session Log ---------- Starting session log... 16/10/19 11:58:54 SessionMgr(26036): Connection success for the external process 'eWkspace_64' 16/10/19 11:59:34 eWkspace_64(18508): Loading GrayScale Layer: 16/10/19 11:59:34

		d:/test/viewshed analysis/seattle_dem.img(:Layer_1) 16/10/19 11:59:34 16/10/19 11:59:36 viewer greyscale "d:/test/viewshed analysis/seattle_dem.img" band 1 transbackground 1; 16/10/19 11:59:36 viewer magnification toplayer 1 resample "Nearest Neighbor"; 16/10/19 11:59:39 C:/Program Files/Hexagon/ERDAS IMAGINE 2020/bin/x64URelease/viewshed.exe 1 16/10/19 11:59:50 SessionMgr(26036): viewshed.exe exited with status -1073741819. 16/10/19 12:00:11 C:/Program Files/Hexagon/ERDAS IMAGINE 2020/bin/x64URelease/viewshed.exe 1 16/10/19 12:00:21 SessionMgr(26036): viewshed.exe exited with status -1073741819.

Issues Resolved – ERDAS IMAGINE 2020

IMAGINE Essentials

Issue ID	Summary – IMAGINE Essentials	Description / How to Reproduce
IM-21970	ERDAS IMAGINE is creating gaps between images when zooming out (lost blocks) - caused by 3x3 pyramid algorithm	Customer reported that ERDAS IMAGINE 2014 v14.1 is creating gaps between multiple images in the viewer when zoomed fully out. The customer's images are 8-bit IMG files. When zooming in, the gap between images disappears. Gaps are not visible when creating pyramid layers by using 2x2 kernel, but are visible when using a 3x3 kernel.
IM-39368	Viewer ERROR: bad allocation associated with large volume of image color table attributes	Viewer does not handle images associated with a large number of attributes (i.e. color table). Test file displays with color scheme and without error in v10.1 & v11.0.5. Gets the bad allocation error in v13.0.2. Thematic input has 25 million rows and displays initially without error. The attribute table (with no color scheme) is displayed fine (except for scrolling to the very bottom). Get an error when trying to add colors from the view. Successfully added colors and class names using standalone raster attribute editor. Image is redisplayed fine after that. It apparently used the cache; it was still gray. Exited ERDAS IMAGINE, restarted, displayed the file. Colors are seen but now a "bad allocation" error is generated. 08/07/14 09:35:09 SessionMgr(8668): ERROR: #2606 from erdas::viewerApp::ViewerControl::QueryAndOpenFile 08/07/14 09:35:09 SessionMgr(8668): ERROR: bad allocation
IM-41039	Unable to load Chinese or Arabic named data from Recent button	1. Launch ERDAS IMAGINE 2018, 64-bit (bld:491) 2. Load the data using Chinese characters in the filename 3. Clear the viewer and try to reload the data from Recent button on the File chooser, from quick access tool bar. 4. Observe that a warning thrown saying Data could not be found or invalid.
IM-48233	New ribbonized Inquire Cursor is not recognized by applications such as Region Growing Properties tool	The "At Inquire" button in the Region Growing Properties tool only works with the legacy Inquire Cursor. If the new ribbonized Inquire Cursor is active in a 2D View and the user clicks the "At Inquire" button in the Region Growing Properties tool a warning message is displayed that states "No Inquire Cursor in Window". Steps to reproduce the problem: # Display the attached image in a 2D View # Activate the Inquire Cursor (Home tab > Information group > Inquire) # Open the Region Growing Properties tool (Drawing tab > Insert Geometry group > Grow menu > Growing Properties)

		# Click the “At Inquire” button in the Region Growing Properties tool. # A message pops up warning “No Inquire Cursor in Window”.
IM-46524	Elevation values messed up when Basemap removed from 2DView	Steps to reproduce: # Display lanier.img in a 2DView. # Left-click in the Elevation Part of the status bar and select Use Elevation Library. # Move the cursor around in the 2DView and notice that the elevation is around 350 meters. # Open the OpenStreetMap basemap in the 2DView containing lanier.img. # Move the cursor around in the 2DView and notice that the elevation is still around 350 meters. # Right-click on Basemap in the TOC and Remove Layer. # Move the cursor around in the 2Dview and notice that the elevation is now WAY below sea level (negative).
IM-46446	Elevation units are wrong in measure tool if target units are changed	Steps to reproduce # Display and image in the 2DView. # Set the view's elevation source to "Use Elevation Library" and set the units to "feet". # Move your cursor around over the image and verify that the status bar is showing you the elevation in feet. # Start the measure tool. # Measure a Point. # See that the elevation is shown in the Point Measurement Description, but, although the value is in feet, the units say "meters."
IM-46523	Elevation part of status bar does not remember or use the proper vertical units for saved elevation sources	Steps to reproduce: # Open lanier.img in a 2DView. # Click in the Elevation Part of the status bar and select Use Elevation Library. # Click in the Elevation Part of the status bar and select "Show in Feet". # Move the cursor around in the 2DView and notice that the elevation is around 1200 feet. # Open lndem.img in Image Metadata and verify that it has Elevation Info and the Elevation Units are "feet". # Click in the Elevation Part of the status bar and select Choose Elevation Source # Select lndem.img as the Source File. # Change the Input vertical units to “feet”. # Click OK. # Move the cursor around in the 2DView and notice that the elevation still shows around 1200 feet. # Click in the Elevation Part of the status bar and select Use Elevation Library again. # Move the cursor around in the 2Dview and notice that the elevation now shows around 350 feet. You can get the same problem switching between any two previously-used elevation sources with different vertical units.
IM-46522	Elevation Source Selector for 2D View should initialize input vertical units from Elevation Info	Steps to reproduce: # Open lndem.img in imageinfo and verify that it has Elevation Info and the Elevation Units are "feet". # Open lanier.img in a 2D View. # Click in the Elevation Part of the status bar and select Choose Elevation Source # Select lndem.img as the Source File. # Notice that the Input vertical units remains "meters". It should be “feet”.

IM-34455	Save as NITF is not responding (nothing happens) to an image that has been opened as Image chain	1. Open any image as Image Chain. 2. File > Save as > All layers as NITF, give proper location to save the output. 3. Click yes for the dialog “save all the layers” Observe that nothing happens.
IM-44349	Cloud Cover segment not displaying correctly as Image Chain (looks fine as Raster)	Using a NITF with multiple image segments, including a cloud cover (CC) segment: # Start a 2D View, click the File Open icon (i.e. as Raster) and select the above NITF file. # In the Sub-Image tab turn on both the MONO and NODISPLY checkboxes. # Raster Options tab select Fit to Frame and click OK # The cloud layer has correctly displayed as solid 255s (cloud) and transparent 0s (no cloud) # Clear the View # File / Open / Raster as Image Chain and select the same NITF file. # Sub-Image tab turn on both the MONO and NODISPLY checkboxes. # Raster Options tab select Fit to Frame and click OK # This time the cloud layer has incorrectly displayed as solid grey across the entire extent.
IM-37916	ImageChain 1:1 display with Lagrange resampling is slower in ERDAS IMAGINE 2018 when compared to ERDAS IMAGINE 2016 Update 1.	This is observed in the following 3 scenarios.. * if the multispectral image is opened in map space. * if both the pan and multispectral images are opened in image space. * if both the pan and multispectral images are opened in map space. Steps to reproduce, by taking the above 2nd scenario as example - Make sure that both the Pan and Multispectral images are copied into the same folder. - Select File --> Open --> Raster as Image Chain - In the file chooser that launches, select both the Pan and Multispectral images. - Go to the Raster Options tab and make sure that the Fit to Frame option is ON. - Click OK in the file chooser. - Once the images are displayed, go to Multispectral and Panchromatic tabs and change the resampling method for both the images as Lagrange. - From the Home tab click on the Reset option. Note the time it takes for the Reset. This time is slower in the above 3 cases when compared to ERDAS IMAGINE 2016 Update 1.
IM-37917	ImageChain w/Lagrange resampling, jump to one end of an image using Inquire Cursor is slower in ERDAS IMAGINE 2018	- Select File --> Open --> Raster as Image Chain - In the file chooser that launches, select the Multispectral image. - Go to the Raster Options tab and make sure that the Fit to Frame option is ON. - Click OK in the file chooser. - Once the images are displayed, go to Multispectral tab change the resampling method as Lagrange. - From the Home tab click on the Reset option. - Launch the Inquire Cursor and feed in the coordinates of bottom right side corner and hit enter. Note the time it takes for the Inquire Cursor to move and display the image. This time is slower compared to ERDAS IMAGINE 2016 Update 1
IM-29894	ERDAS IMAGINE is ignoring the overviews for grayscale (and RGB) TIFF image with JPEG compression	Overviews are not considered by Image Chain for grayscale image with JPEG compression. Due to this it is taking a long time to load the image even though the image has a full set of overviews. For the same image if we use another compressions like LZW then overviews are considered and displays the image in seconds.

		Also, RGB (also w/ JPEG compression) version of same image displays very quickly, indicating the overviews are being seen and used. Pyramid info for gray scale image is showing as no pyramid layers present in ERDAS IMAGINE 2016 software.
IM-47229	Problem of opening as image chain for image calibrated with DEM with NoData	An image was geometrically calibrated using a DEM that was of smaller extent than the image (or which otherwise contained NoData locations) When opening as Image Chain in the Viewer, the Low Right quadrant is not correct. It should be no data area (background color), but showing partial raster.
IM-46335	Selecting vector symbol from "Other" group throws errors and sometimes crashes	To recreate: # Display a polygon shapefile # Vector tab > Style > Styles group > Properties button (to open Fill Style Chooser) # Custom Tab > Use Pattern checked on > open Symbol menu > Other > Pick any Menu, any Symbol. Errors are thrown. # Repeat steps above, then no errors! Behavior is inconsistent. Sometime crashes occur. Sometimes errors don't occur. 02/10/18 12:26:26 viewer vector "shapefile.shp"; 02/10/18 12:28:26 SessionMgr(17748): ERROR: #1 from eant_CoordSysConversionConvertAndTransformYScale 02/10/18 12:28:26 SessionMgr(17748): ERROR: Error returned from eant_CoordSysConversionScaleAndTransformY 02/10/18 12:28:26 SessionMgr(17748): ERROR: #2 from eant_CoordSysConversionScaleAndTransformY 02/10/18 12:28:26 SessionMgr(17748): ERROR: Error returned from eant_CoordSysConversionScaleY 02/10/18 12:28:26 SessionMgr(17748): ERROR: #3 from eant_CoordSysConversionScaleY
IM-47264	"Choose Sensor" doesn't use its .SAF settings correctly still	Open a three-band RGB image into a 2D View as raster. Go to the Multispectral tab. In the Bands group note that it has defaulted to Choose Sensor and a RGB order of Layer_1, Layer_2, Layer_3 (it should based on default Preferences). Now, not a lot of people realize, but "Choose Sensor" is just a standard .SAF file, with wavelengths set in it. So you should be able to pull down the Common Band Combinations list. "False Color Infrared" shouldn't show up on the list - it shouldn't be present based on the wavelengths defined in 3BandDefault.saf.
IM-46915	"Choose Sensor" doesn't use its .SAF settings correctly	Open a three-band RGB image into a 2D View as raster. Go to the Multispectral tab. In the Bands group note that it has defaulted to Choose Sensor and a RGB order of Layer_1, Layer_2, Layer_3 (it should be based on default Preferences). Now, Choose Sensor is just a standard .SAF file, with wavelengths set in it. So you should be able to open the Common Band Combinations list and select True Color. But when you do, the RGB display order changes to Layer_1, Layer_1, Layer_1, which is incorrect. False Color Infrared should not be present based on the wavelengths defined in 3BandDefault.saf. Choose Sensor option has similar problems for other numbers of bands too.
IM-46880	Clearing View with Subset's Inquire Box up crashes ERDAS IMAGINE	Display an image in a 2D View (e.g. lanier.img) On the Multispectral tab start Subset and Chip With the Subset and Chip dialog (and its associated Inquire Box) still active, click the Clear View icon on the Quick Access Toolbar. ERDAS IMAGINE crashes Doesn't happen in ERDAS IMAGINE 2016 v16.1

IM-41174	ERDAS IMAGINE crashes with Measurement tool operation	1.Launch ERDAS IMAGINE 2018 2.Load a WorldView-2 GeoTIFF image. 3.Now Click Measure button from Home tab > Information group 4.Select Shadow height from Layover from Measurement tab > Measure 5.Observe Cursor changes to cross 6.Keep the cursor as cross and clear the viewer from quick access tool bar 7.Now with cross Cursor click on the viewer and observe ERDAS IMAGINE crashes
IM-48070	Viewer Banner (Title Bar) is Erased	When a 2D View is resized smaller and then expanded to original size, parts or all of the View Title Bar Text is erased.
IM-47497	Problem with HxIP basemap not reprojecting	Failure Scenario 1. Display orthorectified IMG image (projected to UTM) 2. Fit Layer to Window (note that View projection is UTM) 3. Click the Basemap button and select HxIP 4. Provide login credentials, Test and (if successful) click Add and then OK 5. Note that the background of the first image displays as red x's Success Scenario 1. Click the Basemap button and select HxIP 2. Provide login credentials, Test and (if successful) click Add and then OK 3. Note that the basemap displays fine. View projection is Lat/Lon 4. Display orthorectified IMG image (projected to UTM) 5. In the Contents pan, right click on the IMG image and select Fit Layer to Window 6. Note that both images display fine There's an issue with the projection the data is being requested in.
IM-48186	Variables option cannot be changed in Batch Command Editor for Map Model to World File process	When trying to use the Map Model to World File image metadata command in a batch process, the Variables menu in the Batch Command Editor is greyed out and stuck at "Original commands". You cannot choose the option "One input, one or more outputs". The command was only half auto-variablized, i.e., a variable is created for the input file, but a variable is not created for the output world file. The original command in ERDAS IMAGINE 2016 is: *imagecommand c:/input/input1.tif -exportworld c:/output/input1.tfw -meter imagecommand* The "original" command in ERDAS IMAGINE 2018 is: *imagecommand '$(Input)' -exportworld c:/output/input1.tfw -meter imagecommand* You can work around this by creating an output variable and inserting it into the command but it is not straightforward to the user.
IM-45559	Multi-point Geometric correction dialog crashes while trying to mark a GCP	1) Launch ERDAS IMAGINE and open a WorldView-2 GeoTIFF image into a 2D View 2) Go to Multispectral tab -> Control Points 3) Select Worldview RPC under the Set Geometric model dialog and Hit OK 4) Close the dialogs that come up [by clicking Cancel repeatedly] and now click on the Create GCP icon on Multipoint Geometric correction window and click on the main viewer to collect the point, note that it throws an error message, Click OK on it Observe that the warptool.exe crashes after clicking OK on the error message
IM-44393	64-bit exporttif outputting "E" for "Software" TIFF tag	# Make sure exporttif is configured to run 64-bit. # Manage Data tab | Conversion group | Export Data. # Set the Format to "TIFF" (not "TIFF Direct Write"). # Select any input image. # Enter an output filename. # Click OK. # Take all defaults and click OK on the Export TIFF Data dialog. # Open the resultant TIFF in Image Info.

		# Click on the TIFF Info tab. # Expand the Image folder and click on the TIFF Tags folder. # The value of the Software tag is "E". # If you do this workflow again with exporttif configured to run 32-bit, the value of the Software tag is "ERDAS IMAGINE".
IM-19706	Area Fill tool corrupts TIFF images	After using the Area Fill tool on a TIFF image and saving the image, it becomes corrupted and does not appear correct when you clear it from the 2D View and display it again. This problem does not occur in ERDAS IMAGINE 2014 v14.1 How to reproduce: 1. Open the TIFF image in a 2D View with the No Stretch raster option enabled. 2. Draw an AOI polygon in any area of the image. Make sure that the AOI is selected. 3. Select TIFF image in the Contents panel. 4. Open the Area Fill tool by clicking on the Fill button in found in the Edit group under the Multispectral tab. 5. In the Area Fill tool, make sure that the Function option is set to Constant and leave the Fill With values is set to 0.0. 6. Click the Apply button to convert the pixel values within the AOI polygon to the new pixel value. An Attention message opens "This layer is using a data stretch lookup table. When editing pixel values you may want to remove the data stretch lookup table. Do you want to do this now? Click Yes. 7. Another warning message displays “Since this function modifies the pixel values of the image, you may wish to recalculate the statistics and histogram for the layer before doing any other operation that depends on this data.” Click OK. 8. Close the Area Fill tool. 9. Save your image. 10. Remove your image from the 2D View and redisplay it. Notice that the image has changed, but not like it should have. 11. This problem does not happen when using an IMG format image instead of a TIFF image.
IM-10616	ERDAS IMAGINE JFIF (JPEG) cannot read Progressive JPEG profile	Customer reported that they cannot import JPG with JGW file into IMG or TIFF formats. They are also not able to open the JPG file in ERDAS IMAGINE. However they can open/ import the JPG file in ER Mapper 2013 The importer gives error message while importing : “Unsupported SOF Marker type 0xc2 While opening the file in the 2D View ERDAS IMAGINE gives : “File open error (0-Unknown error”
IM-44698	Artifacts in Sentinel-2 images when directly viewing the *.safe file in 2D View as well as after importing	Customer reported that they can find artefacts in Sentinel-2 images when directly viewing the *.safe file in a 2D View as well as after importing the *.safe file into *.img by means of the Sentinel-2 Direct Read and Sentinel-2 manifest importers. The artifacts seems to be due to the granule tile borders. Seems to affect only imagery from before December 2016 when the data structure of Sentinel-2 was re-organized. Steps to Reproduce: 1. Open the Sentinel2 *.safe file in IMAGINE Viewer. Zoom to a granule edge. You see the broken straight lines artifacts in between granule tiles. 2. Import the Sentinel 2 *.safe file by means of the Sentinel 2 Direct Read and Sentinel-2 manifest importer. Then open the imported output file in IMAGINE Viewer. Zoom to a granule edge. You see the broken straight lines artifacts in between granule tiles.

IM-39173	Opening a hyperspectral image in ImageInfo takes long time	To reproduce the problem open a hyperspectral image in a 2D Viewer. Go to IMAGINE Home tab and click Metadata button. Notice that it takes quite long time before the image info is shown on ImageInfo dialog box. On one test machine, it takes more than 10 seconds to open an AVIRIS scene in ImageInfo, It has 224 bands and whose width and height are 530 pixels and 301 pixels.
IM-12677	Request to add missing ground control point gcc files in ERDAS IMAGINE example data	Request to add missing ground control point gcc files in the ERDAS IMAGINE example data in the download page. In the ERDAS IMAGINE 2014 Online Help documentation, in the "Refine the DEM Extraction Workflow exercise", it has been mentioned about using two Ground Control Points files (gcc files) : "uluru_reference-gcp.gcc" and the "uluru_input-gcp.gcc" file. However the customer couldn't find those two gcc files in the ERDAS IMAGINE example data. These are now downloadable as part of the ERDAS IMAGINE Radar Example Data download.
IM-43563	Tiff files with Thai characters in their names fail	An ERDAS APOLLO customer is seeing failures due to ERDAS IMAGINE not being able to handle tiff files with Thai characters in them, for example: เชียงราย.tif The issue is not restricted to TIFF. If you rename an IMG file, create pyramids (rrds) and then attempt to open the IMG file, you get errors referring to the pyramids not being found.
IM-44567	64-bit ImageInfo displaying TIFF GTCitationGeoKey incorrectly	# Open a TIFF file in *64-bit* ImageInfo. # Click on the TIFF Info tab. # Expand the Image folder and the GeoTIFFKeys folder. # The GTCitationGeoKey is displayed in what looks like Chinese characters, although the values of the other tags look fine.
IM-46884	Pleiades DIMAP v2 image stats reversed for red and blue bands	If you calculate statistics (for example in Image Info) for a Pleiades DIMAP v2 image the resulting stats are correct. Whereas if you look at the "raw" DIM*.XML file (with all .aux files, etc., deleted first) ERDAS IMAGINE is trying to use the statistics it finds in the .XML header, but is associating the stats in the wrong order.
IM-44990	Socet GRID file opens in 32 bit but not 64 bit	Open a specifc type of Socet GRID *.dth file in a 32-bit 2D View. Image appears. Open the same file in 64 bit view. Get error: "Header identifier did not match"
IM-37447	Additional empty "Image" segments shouldn't be saved to IMG header	Open a multi-segment NITF image in a 2D View (using default settings so only one image segment is opened). File / Save As / Top Layer As.. to an IMG format output. Open the resulting IMG file in ImageInfo and click on the NITF tab. Note that despite the fact that there is only a single image segment physically present in the IMG, all the original Image segments have been copied across even though they do not have the associated data to go with them. Not only is not removing them confusing, it also causes ERDAS IMAGINE problems - e.g. if you try to Save All Layers as NITF, the NITF Exporter crashes.
IM-46218	TIFF pyramids not recognized (APM fails with .tiff)	APM fails with customers .tiff images. All is correct with customer's block setup. Image Info does not recognize pyramid layer algorithm. Images do not display correctly if you "fit to frame" in IMAGINE Viewer. And in IMAGINE Photogrammetry, image is displayed only on a small section of image footprint. Re-generating pyramids in IMAGINE Photogrammetry does not solve the problem. Only workaround is to convert the imagery to another format. So, I imported these files to .img format and re-attached them to the block file and then tested APM. APM run successfully collected 90+ points using default pattern.

IM-47024	JPEG2000 exporter in ERDAS IMAGINE gives error message with ArcGIS created *.img file	Customer reported that JPEG2000 exporter (Manage Data > Export Data > JPEG 2000) in ERDAS IMAGINE gives error message with ArcGIS created *.img file. The JPEG 2000 export process runs all the way through, and nearly at the end ERDAS IMAGINE gives an error, saying: "Layer_1INode already exist for file *.aux". The customer‘s *.img file was created by ArcGIS HillShade Tool from a DEM file created by ERDAS IMAGINE’s MosaicPro . Even if the ERDAS IMAGINE JPEG 2000 exporter gives the following error message, it creates a valid output JPEG 2000 file. “The file *.jp2 cannot be deleted because it is in use by another application. Close the file and then press 'Retry' to continue, or press 'Cancel'.
IM-46584	Help - ML Review Tab Hyper link navigating to Review Tab of Zonal change	1.Launch ERDAS IMAGINE 2018 Update 2 2.Launch Machine Learning Layout from File > Layout 3.Select ML Process tab and click F1 4.Observe ML Review Tab Hyper link navigating to Review Tab of Zonal change layout.
IM-35331	Errors when trying to display features from Oracle Features Proxy (.ofp) and Spatial Feature (.ogv)	Customer reported that ERDAS IMAGINE gives errors when they tried to display features from both Oracle Spatial Feature (.ogv) and Oracle Features Proxy (.ofp), The customer has been able to create a connection using both Oracle Spatial Feature (.ogv) and Oracle Features Proxy (.ofp), When trying to load .ogv, he gets the error: "Invalid input ProProjection structure", then "Invalid input units name". The feature shows up in the legend, but is not visible in the display (but the bounding box can be seen if turned on). When trying the .ofp, he gets the error: "Could not open layer. Invalid connection parameters". He gets nothing in the legend or display window.
IM-35332	ERDAS IMAGINE is unable to display features from Oracle Spatial Feature (.ogv) and Oracle Features Proxy	Customer reported that ERDAS IMAGINE is unable to display features from both Oracle Spatial Feature (.ogv) and Oracle Features Proxy (.ofp), when connected to the database using credentials of a user who is non-owner of the database. If the customer uses the credentials of the owner or the credentials of the System DBA, he can display the feature in ERDAS IMAGINE. However, customer is not seeing any problem with the same data in GeoMedia. It’s only in ERDAS IMAGINE, which is not displaying the vector. Recreated the problem in ERDAS IMAGINE and in another popular GIS software.
IM-42876	Unable to open point features from an Oracle database	Using specific Oracle database connection, try to display any points features available in it. Notice that there are couple of error messages and the display fails.
IM-48922	Proxy gdb file access, without connecting to geodatabase throws error, which is not clear	ERDAS IMAGINE 2018 Update 2 could not use an existing .gdb Geodataabse proxy file to access the Geodatabase
IM-48919	Trying to display a Point Feature class in gdb (having single point) fails in ERDAS IMAGINE	ERDAS IMAGINE 2018 Update - Trying to display a Point Feature class in gdb (having single point) fails in ERDAS IMAGINE 2018 Update 2. Whereas Point Feature Class with >1 point displays fine.
IM-48918	Supported version of Geodatabase logged in session log needs to be updated	In ERDAS IMAGINE > File > Open > Vector layer > ArcGIS Geodatabase (*.gdb) > Click Connect. Session log reports: 17/05/19 15:24:52 SessionMgr(5324): Detected geodb version 10.7 17/05/19 15:24:52 SessionMgr(5324): Unsupported version of GeoDatabase

		support located. Please note that IMAGINE is only supported for version up to 10.2.
IM-47243	Fail to launch Texel Mapper	1. Launch ERDAS IMAGINE 2018 (64-bit) 2. Launch Texel Mapper from Toolbox tab > Common group > Stereo Analyst drop down. 3. It fails.
IM-45530	Unable to load ers file associated with TIFF file in ERDAS IMAGINE 2018	1.Launch ERDAS IMAGINE 2018 (64-bit) 2.Try to load a specific .ers file and observe Message thrown saying image has no layers. 3.Sessionlog saying ERS Raster error:Filetype unkown.
IM-44887	Output created using LaGrange resampling differs from the output generated using other resampling methods	Giving the image and the DEM provided as input to "Orthorectify without GCP" option, generate 2 outputs one with LaGrange resampling method and the other with any other resampling method from the rest available. Open the 2 outputs in 2 different viewers and notice that in one portion of the image the outputs differ.
IM-39311	Generating pyramids takes an unexpectedly long time because of the binary "use multithreading" hyperspectral preference	Pyramid layers are taking an unexpectedly long time to be generated for hyperspectral images.
IM-41083	unit test failure when locale is set to German (bug in etxt::tostring)	The locale on my development machine is set to German (Control Panel | Region | Formats tab | Format = "German (Germany)"). When running the eCommon etxtUnitTest::test_ToString_Double unit test, it fails, because the string has a comma as the decimal separator. The problem is that the fallback condition at the bottom of etxt::tostring is just calling etxt_Text_sprintf, which is ignoring the useCLocale parameter passed to etxt::tostring ().
IM-48813	DEM Tools Revalue function does not allow DEM recode values to be specified	DEM Tools Revalue application does not add recode values from Range(s) window to the Range list. The program does not run unless recode values are added to the Range list. Does not work with any data type (i.e 1, 2, 4, 8, 16 and 32 bit signed/unsigned integers, 32 and 64 bit float). Worked correctly in ERDAS IMAGINE 2016 To recreate: Open Terrain tab > DEM Tools > Revalue Input DEM: Indem.img Add 1300 to Range(s) window New Value: 0+ Select Add Range to List. There is no response to this request
IM-43195	64-bit VersionTool reporting garbage for Date/Time Stamp	Session | DLL Information Class: Raster Formats DLL Instance Information tab Instance: ADRG (and others) Description shows Date/Time Stamp: 嬴霘湡㈠· ‸ﾋﾙ㈺捺く
IM-46366	Coordinate system option in Measurements panel automatically flips if zoom is performed in the viewer	· • Launch the Preference Editor and change the preference for the following option to Lat/Lon (WGS 84). · • Viewing category > Viewer > Show Coordinates As · • Open an image in the viewer and select the Measure option from the

		Information group of Home tab. ・ • In the Measurement tab under the Setup group notice that the Coordinate Type is Lat/Lon. ・ • Measure a few points and notice that the measurements are displayed as Lat/Long. ・ • Perform some zoom in the viewer. ・ • Notice that the coordinate type in the measurements panel flips to Map.
IM-40172	Image Command does not print statistics when using 'Compute Statistics' and 'Print To File' together	Using the 'Compute Statistics' and 'Print To File' options together does not print image statistics to file when the .aux does not exist prior to running Image Command. If you run Image Command only using 'Compute Statistics' first and then run Image Command using 'Print To File', the image statistics are printed to file. To recreate: # Be sure doubl_float.aux does not exist # Run Image Command, open doubl_float.tif # Check 'Compute Statistics' and 'Print To File', specify .txt # OK Open the .txt with WordPad. Image statistics are not present.
IM-46755	SARVI index fails with "Empty data on port" error	On the Raster tab, open the Indices dialog Specify Input as lanier.img Set Category to All Select Index: SARVI Click Preview (or OK after providing an output filename) Error: Spatial Model failed in Multiply. The error was "Empty data on port".
IM-44665	If you try to save the session, ERDAS IMAGINE crashes	Go to File > Save > General Save Options > Session ERDAS IMAGINE crashes
IM-49543	Choosing this .TIL file in the file chooser caused IMAGINE crash	Clicking on a specific DigitalGlobe .TIL file in the file chooser causes ERDAS IMAGINE to crash.
IM-49605	Generate System Report showing wrong operating system information	1.Launch ERDAS IMAGINE 2.Generate System report from File > Session 3.Click OK (make sure all check boxes checked on) 4.Provide the path for report 5.Open the report generated and observe operating system information shown as Microsoft Windows 8 64-bit (Build 9200) for Windows 10 machine
IM-47470	Opening individual Algorithm file crashes ERDAS IMAGINE	1.Launch ERDAS IMAGINE 2.Copy Algorithm file RGB.alg to local folder C:¥Program Files¥Hexagon¥ERDAS IMAGINE 2018¥examples¥ermapper¥data_types¥airphoto 3.Try to open the RGB.alg from File > Open > Algorithm 4.Observe ERDAS IMAGINE crashes.
IM-48520	Chart to Chart change detection throwing fault message in session log "Client Failed to connect to server"	1.Launch ERDAS IMAGINE 2.Launch Chart to Chart change detection from Raster > Change Detection > Change Detection Tools > Chart to chart 3.Provide the inputs as chart1-geo.tif, chart2-geo.tif 4.Provide the output name and click run 5.Observe Process run and output got generated but session log showing -Client Failed to connect to server

		+Session log:+ 17/04/19 14:47:17 SessionMgr(9640): Connection success for the external process 'eWkspace_64' 17/04/19 14:47:31 C:/Program Files/Hexagon/ERDAS IMAGINE 2019/bin/x64URelease/smguiprocess.exe $IMAGINE_HOME¥etc¥ZonalChange¥ChartToChartChangeDetection.gmdx 17/04/19 15:01:30 C:/Program Files/Hexagon/ERDAS IMAGINE 2019/bin/x64URelease/smprocess.exe $IMAGINE_HOME¥etc¥ZonalChange¥ChartToChartChangeDetection.gmdx Chart To Chart Change Detection.Chart 1=d:¥2019¥data_delete¥chart¥chart1-geo.tif Chart To Chart Ch ange Detection.Chart 2=d:¥2019¥data_delete¥chart¥chart2-geo.tif Chart To Chart Change Detection.Change Image=d:¥2019¥16-04-2019¥charttochartchange.img Chart To Chart Change Detection.Threshold=0.5 17/04/19 15:01:30 SessionMgr(9640): smguiprocess.exe exited with status 1. 17/04/19 15:01:31 SessionMgr(9640): Running spatial model ($IMAGINE_HOME¥etc¥ZonalChange¥ChartToChartChangeDetection.gmdx) with port values (Chart To Chart Change Detection.Chart 1=d:¥2019¥data_delete¥chart¥chart1-geo.tif,Chart To Chart Change Detection .Chart 2=d:¥2019¥data_delete¥chart¥chart2-geo.tif,Chart To Chart Change Detection.Change Image=d:¥2019¥16-04-2019¥charttochartchange.img,Chart To Chart Change Detection.Threshold=0.5). 17/04/19 15:01:31 17/04/19 15:01:34 SessionMgr(9640): Running command line: C:/Program Files/Hexagon/ERDAS IMAGINE 2019/bin/x64URelease/imagesegmentation_fls.exe -maxpixels "2000000" "C:¥Users¥agangumo¥AppData¥Local¥Temp¥SM-da28-05b1-b5f9-1e10-010952¥d963f69d-9911-4a3e-9 aef-069d13813d12" "C:¥Users¥agangumo¥AppData¥Local¥Temp¥SM-da28-05b1-b5f9-1e10-010952¥1bd12244-1cdf-493f-ae92-3d74f2a907b7" -scale "100" -scalemin "10" -scalemax "2000" -spectral "1" -texture "0" -shape "0.29999999999999999" -size "0.30000000000000004" -min "10" -max "100000" -randomcolor "1" -meter 17/04/19 15:01:34 SessionMgr(9640): Connection success for the external process 'FLS Segmentation' 17/04/19 15:01:35 SessionMgr(9640): Client Failed to connect to server :No connection could be made because the target machine actively refused it 17/04/19 15:01:36 SessionMgr(9640): Client Failed to connect to server :No connection could be made because the target machine actively refused it 17/04/19 15:01:37 SessionMgr(9640): Client Failed to connect to server :No connection could be made because the target machine actively refused it 17/04/19 15:01:38 FLS Segmentation(6664): Performing FLS Segmentation 17/04/19 15:01:38 FLS Segmentation(6664): Input File: C:/Users/agangumo/AppData/Local/Temp/SM-da28-05b1-b5f9-1e10-010952/d963f69d-9911-4a3e-9aef-069d13813d12 17/04/19 15:01:38 FLS Segmentation(6664): Pixel:Segment Ratio: 100 17/04/19 15:01:38 FLS Segmentation(6664): Spectral Weight: 1.00 17/04/19 15:01:38 FLS Segmentation(6664): Texture Weight: 0.00 17/04/19 15:01:38 FLS Segmentation(6664): Size Weight: 0.30 17/04/19 15:01:38 FLS Segmentation(6664): Shape Weight: 0.30 17/04/19 15:01:39 FLS Segmentation(6664): Segmenting Tile 1

		17/04/19 15:01:48 FLS Segmentation(6664): Segmenting Tile 2 17/04/19 15:01:50 SessionMgr(9640): external process exited normally. 17/04/19 15:01:52 SessionMgr(9640): Spatial model ran successfully. 17/04/19 15:01:52 17/04/19 15:01:53 SessionMgr(9640): smprocess.exe exited normally.
IM-46613	Opening map composition file having '(' in the file path of referenced images, crashes ERDAS IMAGINE 2018	Launch ERDAS IMAGINE 2018. Open map composition file "withparentheses.map" Observe user is prompted to substitute raster file path. specifying to use the Original file through substitute crashes ERDAS IMAGINE. Whereas in ERDAS IMAGINE 2016 Update1, throws error. 6/10/18 14:57:39 SessionMgr(7020): ERROR: #453 from efnp_FileNodeListGetNonNodePart 26/10/18 14:57:39 SessionMgr(7020): ERROR: efnp_FileNodeListGetNonNodePart fail 26/10/18 14:57:39 SessionMgr(7020): ERROR: #774 from efnp_FileNodeListGet 26/10/18 14:57:39 SessionMgr(7020): ERROR: FileNodeListParse failed 26/10/18 14:57:39 SessionMgr(7020): ERROR: #1457 from FileNodeListParse 26/10/18 14:57:39 SessionMgr(7020): ERROR: Parse error; <FileNodeListItemSpec> at position 62 is preceded by a <DirectoryName> 26/10/18 14:57:39 SessionMgr(7020): ERROR: #1148 from edis_TrueColorCreateLayerByName 26/10/18 14:57:39 SessionMgr(7020): ERROR: erdas::raster::GridCoverageIdentifierEFNP::FromFileNode failed 26/10/18 14:57:39 SessionMgr(7020): ERROR: #507 from erdas::raster::GridCoverageIdentifierEFNP::FromFileNode 26/10/18 14:57:39 SessionMgr(7020): ERROR: efnp_FileNodeListGetNonNodePart failed 26/10/18 14:57:39 SessionMgr(7020): ERROR: #453 from efnp_FileNodeListGetNonNodePart 26/10/18 14:57:39 SessionMgr(7020): ERROR: efnp_FileNodeListGetNonNodePart fail 26/10/18 14:57:39 SessionMgr(7020): ERROR: #774 from efnp_FileNodeListGet 26/10/18 14:57:39 SessionMgr(7020): ERROR: FileNodeListParse failed 26/10/18 14:57:39 SessionMgr(7020): ERROR: #1457 from FileNodeListParse 26/10/18 14:57:39 SessionMgr(7020): ERROR: Parse error; <FileNodeListItemSpec> at position 62 is preceded by a <DirectoryName> 26/10/18 14:57:39 SessionMgr(7020): ERROR: #595 from erdas::mapComposerApp::MapComposerControl::Open 26/10/18 14:57:39 SessionMgr(7020): ERROR: erdas::mapComposerApp::MapComposerControl::Open failed 26/10/18 14:57:39 SessionMgr(7020): ERROR: #549 from erdas::mapComposerApp::MapComposerControl::Open 26/10/18 14:57:39 SessionMgr(7020): ERROR: edis_MapComposerBuildFrames failed 26/10/18 14:57:39 SessionMgr(7020): WARNING: #1 from edis_MapComposerBuildFrames 26/10/18 14:57:39 SessionMgr(7020): WARNING: Error filling in frames 26/10/18 14:57:40 26/10/18 14:57:40 SessionMgr(7020): WARNING: #1 from edis_MapComposerPopulateFrame 26/10/18 14:57:40 SessionMgr(7020): WARNING: Couldn't open truecolor layers: 26/10/18 14:57:40

		//ingrnet.com/in/sgi/geospatial/gs2/imaginedata/pixeldata/del/(copy)/limerick_2007_subset.img(copy)/limerick_2007_subset.img(:Layer_1)
		26/10/18 14:57:40
		//ingrnet.com/in/sgi/geospatial/gs2/imaginedata/pixeldata/del/(copy)/limerick_2007_subset.img(copy)/limerick_2007_subset.img(:Layer_2)
		26/10/18 14:57:40
		//ingrnet.com/in/sgi/geospatial/gs2/imaginedata/pixeldata/del/(copy)/limerick_2007_subset.img(copy)/limerick_2007_subset.img(:Layer_3)

IM-47986	Reprojecting MrSID image much slower in ERDAS IMAGINE 2018 vs ERDAS IMAGINE 2015	It was reported that ERDAS IMAGINE 2018 takes over two hours to reproject a 17 MB MrSID image, but the same image can be reprojected in ERDAS IMAGINE 2014 in 20-30 seconds. The same pattern can be observed with other larger MrSID files. Reprojecting similar images in other formats such as IMG or TIFF only takes 20-40 seconds in ERDAS IMAGINE 2018.
IM-11214	Double && in Preferences	File > Preferences Under User Interface folder you will see the entry “User Interface && Session”
IM-42604	After using Add/Change Projection in Edit Image Metadata, the Unit disappears in the metadata	Reported that after editing or adding Projection in a file, using Edit Image Metadata, the Unit disappears in the metadata. To recreate the problem, use the customer’s data in Edit Image Metadata or ImageInfo 1. Set the Map Model as “Transverse Mercator” and Meters. 2. Set the projection as EPSG:25835 Note that the unit vanished from the metadata. When you set the Map Model again, the unit shows again.
IM-49222	Reprojecting ECW image to GDA2020 Conformal (NTv2) datum fails	Reprojecting an ECW image from EPSG:23855 (GDA94 datum) to the GDA2020 Conformal (NTv2) datum takes a very long time (~12 hours) and eventually the process fails. There is no EPSG code for the same projection as EPSG:23855 instead using the GDA2020 Conformal (NTv2) datum, so it has to be set manually. The projection parameters are outlined below. Reprojecting to the EPSG:7855, which is essentially the same projection but using the GDA2020 datum instead of GDA2020 Conformal (NTv2), works and only takes a couple of hours. Steps to reproduce the problem: # Start the Reproject Images tool and select the image “input_image.ecw” as the input file. # Enter a name for the output file and make sure the file format is ECW. # Set the Processing Option to “Resample to Output File”. # Set the Resampling Method to “Nearest Neighbor”. # Choose “Rigorous Transformation”. # Use the Projection Chooser to set the output map projection using these parameters: ## Projection Type: UTM ## Spheroid Name: GRS1980 ## Datum Name: GDA2020 Conformal (NTv2) ## UTM Zone: 55 ## North or South: South ## Axis Order: E,N # Click OK and wait while it processes and eventually stops.
IM-37584	Raster attributes lost after reprojection	When reprojecting a thematic raster image, the output image does not retain the same raster attributes that were included in the input image. Steps to reproduce the problem: Start the Reproject Images tool (Raster tab > Geometry group > Reproject)

		Select the thematic image (with attribute field called “CLC Land Cover”) as the input file. Enter a name for the output file. Use the default settings in the Reproject tool and click OK to begin reprojecting the data. Display the input image in one 2D View and the reprojected image in a separate 2D View. Display the raster attribute tables for both images (Table tab > View group > Show Attributes). Notice that the column titled “CLC Land Cover” with the class names is missing from the reprojected image.
IM-41736	Image Chain / Sensor Look Angle is Disabled	When displaying an image as an Image Chain, the "Sensor Look Angle" option in the lower right corner is grayed out. However the Up_is_Up in the Smart Control works. The “Sensor Look Angle” option is not grayed out if the image is displayed not using image chains.
IM-48811	Login to Smart M.App link in ERDAS IMAGINE ribbon is no longer functional	Login to Smart M.App link used in the ERDAS IMAGINE ribbon is no longer functional. The broken link opens a page error. This is due to a change in the address of the Smart M.App marketplace.
IM-40404	Bubble help for Launch Command Window button is outdated	Click the Help tab to search for the Session Command History window. It states that that the path is Application Menu > Session Options menu, but it is actually File tab > Session > Launch Command Window. The Application menu is from an older version of ERDAS IMAGINE and is no longer used.
IM-49188	Ribbon tabs not being hidden when switching to Spatial Modeler through title bar	# Open ERDAS IMAGINE 64-bit # Open a raster image in 2D View # Open Spatial Modeler # switch to the 2D View layer # switch to the Spatial Modeler layer by clicking on its title bar (not in the table of contents or inside of the layer itself) Note that the ribbon tabs for the raster image have not been hidden.
IM-41512	Confusing error message in zonal change project when regions shapefile is locked	Use two ERDAS IMAGINE sessions in parallel. ERDAS IMAGINE Session1: 1) Open regions.shp 2) On Drawing tab click Enable Editing ERDAS IMAGINE Session2: 1) Switch to the Zonal Change Layout and create a new project 2) Specify Before and After images 3) Go to Process tab and click Edit Project. 3) Click Add New Regions > One Per File. Select regions.shp Get an error message ”The new region is empty. It will not be created”. But it is not empty. When loading regions.shp via Add New Regions > One Per Polygon the error message is more appropriate: Spatial Model failed in Features Input. The error was "erdas::sb_CGP::VectorSource_X::OnExecute failed Cannot open specified Vector source".
IM-39921	Formula does not apply to first row of vector attribute table	Open an image. Open a vector layer over the top. On the Drawing tab select Enable Editing.

		On the Table tab, select Show Attributes. In the attributes CellArray select a numeric attribut column Select, for example, rows 5 to 10. Right click on the column titles and select Formula. In the Formula dialog type the value 2 and click Apply. First problem is that you lose the row selection – it should not remove your selection. Second problem is that row 5 is still a 1, not a 2. The edit was not applied to the first selected row.
IM-46339	Large Shapefile causes problems with viewing vector attribute table	A Shapefile with a lot of records (~1.8 million arcs) causes a problem when scrolling down through the vector attribute table. When scrolling to the bottom of the table it bounces back up to the first record. The workaround is to right-click in the Record column and select Goto to open the Row Position dialog and then click the Last button or enter the desired row number and click Goto.
IM-46430	Shapefile with a lot of arcs (~1.8 million) causes Features Input operator error	A Shapefile with a lot of records (~1.8 million arcs) causes a problem when processing it through the Features Input operator. When running the spatial model, it fails at the Features Input operator with the message “Read fewer bytes than expected.” The customer also reports that the Convert To Raster operator fails using the same input Shapefile with the error message “The object reference was not set to an object entity". They claim that it does work sometimes, but not reliably and if it works, not all of the records are converted to the output raster image. Session log: SessionMgr(5768): Executing spatial model: c:/steve/convert_to_raster.gmdx SessionMgr(5768): Read fewer bytes than expected. SessionMgr(5768): Read fewer bytes than expected. SessionMgr(5768): ERROR: #2348 from HexGeo::SpatialModeler::Operator::InternalApply SessionMgr(5768): ERROR: HexGeo::SpatialModeler::Operator::SetErrorMessage failed SessionMgr(5768): ERROR: #1985 from HexGeo::SpatialModeler::Operator::SetErrorMessage SessionMgr(5768): ERROR: Spatial Model failed in FeaturesInputCGP. The error was "Read fewer bytes than expected.". SessionMgr(5768): ERROR: #2348 from HexGeo::SpatialModeler::Operator::InternalApply SessionMgr(5768): ERROR: HexGeo::SpatialModeler::Operator::SetErrorMessage failed SessionMgr(5768): ERROR: #1985 from HexGeo::SpatialModeler::Operator::SetErrorMessage SessionMgr(5768): ERROR: Spatial Model failed in FeaturesInputCGP. The error was "Read fewer bytes than expected.". SessionMgr(5768): Spatial model execution failed.
IM-43624	Vector features stored in ArcGIS Geodatabase with units set to degrees causes “Units are not of same type” errors	A long stream of error messages are displayed when opening vector feature data that has its projection units set to decimal degrees and is stored in an ArcGIS Geodatabase. It appears that ERDAS IMAGINE does not recognized the map units. The projection is Geographic (Lat/Lon), WGS 84, decimal degrees. The same data exported to a Shapefile does not cause any problems when opening it. Displaying the Geodatabase features in ArcGIS does not cause any issues.
IM-46621	File Chooser does not show shapefiles for Copy Vector Layer, Rename	This was only reproducible in 64-bit ERDAS IMAGINE 1) Launch ERDAS IMAGINE > Vector tab > Copy Vector Layer 2) Observe that both input and output has default *.arcinfo as formats

	Vector Layer, and Delete Vector layer	3) Now launch input file chooser by clicking open button > go to any location where Shapefiles are present 4) Observe that until the file format is re-selected as Shapefile, the Shapefiles are not visible in the file chooser 5) Next open the output File chooser by clicking open button of Output (note that default output format is Shapefile) 6) Now give an output name and click OK, observe that the output format is *.arcinfo 7) Unless the output format is re-selected in the file chooser, the output is not produced Case is same for Rename Vector layer and Delete Vector layer
IM-45038	ERDAS IMAGINE crashes while deleting ID attribute from vector data	1.Launch ERDAS IMAGINE 2.Load a specific Shapefile and display attribute table. 3.Select the Drawing tab and Enable editing. 4.Select table tab and click on Column Properties 5.ID got selected itself on Column Attributes dialog 6.Click delete and then Ok. Observe ERDAS IMAGINE crashes.
IM-44889	Zonal Change Process failing with Image difference algorithm	1.Launch IMAGINE 2018 v 16.5, Launch Zonal Change Layout. 2.Create a New Project , load input images and Zone files Data location:¥¥alpha¥JIRA_data¥IM-44888 * TheVillagesSubset2007.ecw * TheVillagesSubset2008.ecw * TheVillagesParcelsSubset.shp 3.After Loading inputs, Select Algorithm as Image Difference and Click Run Region 4.Let Image Difference Value Parameter Threshold as default Zero and Click ok observe that process failing. >> Session log attached for reference. NOTE: * The same workflow is not giving an indication of process failing in IMAGINE 32 bit. * The same workflow if tried with same raster input for both Before image and After image (EX: TheVillagesSubset2007.ecw) to make input image difference as zero, again also process failing, which should be theoretically wrong for end user. * Not giving user friendly pop-up message that Image difference threshold should not be Zero
IM-17921	Not replacing an not-existent Before image or After image caused IMAGINE crash	Take any projects from here ¥¥alpha¥teamspace¥Pixel¥Temp¥ZCim14diff Open the project It tells you files are missing and to correct the path. If you do not select the right img file (by clicking Cancel, for instance), IMAGINE would crash. If you select the right img file and press substitute, error is thrown that shapefile link is incorrect and the project does not open.
IM-37622	Zonal Mean produces incorrect result (1.#QNAN) with float class raster (and NoData set to 0)	See model copied to ¥¥alpha¥Siebel_Bug_Data¥1-KZ8EUF. It's basically takes a shapefile as raster as the Zones, a floating point image as the Class Raster and feeds them into Zonal Mean. Run the model once and note that the mean is stated as 1.#QNAN
IM-49444	With only Before or After Image in the Zonal Change Layout, closing it with/without saving crashes ERDAS IMAGINE	1) Launch IMAGINE > File > Layout > Zonal Change Layout 2) Process tab > New > create a new project C:¥temp¥example.zcp 3) Add only Before or After Image in the 2D Viewer, click Close in the Process tab, click Yes/No Observe that it crashes ERDAS IMAGINE while trying to close the Zonal Change layout with only Before or After Image in the layout

		Note: 1) If both Before and After images are loaded in the Zonal Change Layout and the Zonal Change layout is closed no crash is observed. 2) This is not reproducible in ERDAS IMAGINE 2016
IM-36621	Selecting Help tab > ERDAS IMAGINE Release Guide & HexGeoWiki, throws ewinopen crash dialog	Goto Help tab > select ERDAS IMAGINE Release Guide. Dialog opens stating, ewinopen has stopped working. Goto Help tab > select Reference Book > HexGeoWiki. Dialog opens stating, ewinopen has stopped working.
IM-33825	Image recode is not working from Raster tab > Thematic > Recode	1.Launch ERDAS IMAGINE, Load the Image landcover_cherokee.img 2.Select Recode from Raster tab > Thematic > Recode. 3.Recode dialog opens,click Setup Recode 4.Change the value of water-1 ,Coniferous Forest-2,Mixed Forest-2,Deciduous Forest-2 and remaining all -0 and click Ok 5.Provide the output File name and click OK and observe process failing with an error out of the Range LUT NOTE: The same work flow from Thematic tab > Recode producing output without any issues.
IM-22019	BigTIFF gives error messages when displaying in ERDAS IMAGINE	BigTIFF created by Intergraph ISIS does not display in ERDAS IMAGINE, but does in other GIS products. While the file extention is .btf, the TIFF DLL searches the file, determines it is a BigTIFF, and then gives multiple errors.
IM-43993	Error when creating RSETs for large Float IMG file	Make a local copy of the large (>2GB) .img and .ige files (only) Start Spatial Model Editor Start the Session Log Add a Generate RSETs operator Set the copy of the .img file as the input filename. Click Run .r1 seems to generate OK, but then you start seeing these messages in the Session Log: 28/03/18 12:18:37 SessionMgr(816): Connection success for the external process 'eWkspace_64' 28/03/18 12:19:14 SessionMgr(816): Executing spatial model 28/03/18 12:20:28 SessionMgr(816): ERROR: #22879 from eimg::details::SSLayerGetNames 28/03/18 12:20:28 SessionMgr(816): ERROR: <NULL> failed 28/03/18 12:20:28 SessionMgr(816): ERROR: #67 from <NULL> 28/03/18 12:20:28 SessionMgr(816): ERROR: eimg_FileImageNamesGet failed 28/03/18 12:20:28 SessionMgr(816): ERROR: #14930 from eimg_FileImageNamesGet 28/03/18 12:20:28 SessionMgr(816): ERROR: eimg_FileOpen failed 28/03/18 12:20:28 SessionMgr(816): ERROR: #5968 from eimg_FileOpen 28/03/18 12:20:28 SessionMgr(816): ERROR: h:/temp/super-stack_4-dates.img.r2: eimg_FileOpen failed (33:Unsupported Raster format or non-Raster format) 28/03/18 12:20:52 SessionMgr(816): ERROR: #22879 from eimg::details::SSLayerGetNames 28/03/18 12:20:52 SessionMgr(816): ERROR: <NULL> failed 28/03/18 12:20:52 SessionMgr(816): ERROR: #67 from <NULL> 28/03/18 12:20:52 SessionMgr(816): ERROR: eimg_FileImageNamesGet failed 28/03/18 12:20:52 SessionMgr(816): ERROR: #14930 from eimg_FileImageNamesGet 28/03/18 12:20:52 SessionMgr(816): ERROR: eimg_FileOpen failed

		28/03/18 12:20:52 SessionMgr(816): ERROR: #5968 from eimg_FileOpen 28/03/18 12:20:52 SessionMgr(816): ERROR: h:/temp/super-stack_4-dates.img.r3: eimg_FileOpen failed (33:Unsupported Raster format or non-Raster format) 28/03/18 12:20:59 SessionMgr(816): ERROR: #22879 from eimg::details::SSLayerGetNames 28/03/18 12:20:59 SessionMgr(816): ERROR: <NULL> failed 28/03/18 12:20:59 SessionMgr(816): ERROR: #67 from <NULL> 28/03/18 12:20:59 SessionMgr(816): ERROR: eimg_FileImageNamesGet failed 28/03/18 12:20:59 SessionMgr(816): ERROR: #14930 from eimg_FileImageNamesGet 28/03/18 12:20:59 SessionMgr(816): ERROR: eimg_FileOpen failed 28/03/18 12:20:59 SessionMgr(816): ERROR: #5968 from eimg_FileOpen 28/03/18 12:20:59 SessionMgr(816): ERROR: h:/temp/super-stack_4-dates.img.r4: eimg_FileOpen failed (33:Unsupported Raster format or non-Raster format) 28/03/18 12:21:03 SessionMgr(816): Spatial model execution complete. The RSETs do seem to be created (and used) correctly.
IM-36660	Image Chain stretch panel enhancement not correctly responding by entering values from keyboard	1.Open Raster image (16-bit Multispectral) as Image chain data 2. Launch Stretch panel, change the type to Two Point Linear. 3. Change the Gray Max to 400 by entering from Keyboard and click enter. Observe that image changes to white. But when the same value is adjusted through moving the slider the colour changes as expected.
IM-36198	CGCF-ECW and CCGF-JP2 Not Persisting GeoTIFF Tag Correctly	Creatable Grid Covergage Fromat (CGCF) ECW and CCGF JP2 Not Persisting GeoTIFF Tag Correctly GeoTIFF tags are not persisted as "2240" as is found in the source TIFF. Rather, they are persisted as "Unknown-2240". This test was done using the "Save As" Viewer capability in ERDAS IMAGINE 2016 v16.1
IM-22018	CellArray with large number of rows is wrong when scrolled to bottom	Start Raster Attribute Editor on Segmentation or Clump output with upwards of 400,000 classes. Scroll to bottom - you see the first few rows instead of the last few rows. Resize the dialog to make it taller (or enlarge docked panel within the ribbon). Try again - it now works OK. Shrink the dialog back - the problem reappears. For larger CellArrays (a million rows) the resizing trick does not work. This makes it virtually impossible to see the last rows of the table. Use RasterToVector to create arc coverage with same amount of records. View coverage and view vector attributes - has similar problems. This affects all CellArrays in ERDAS IMAGINE when dealing with a long list.
IM-11221	ERDAS IMAGINE not recognizing Hebrew characters in the folder name	ERDAS IMAGINE 2013 and 2014 are not recognizing any files in the folder when the folder name is written in Hebrew character
IM-20577	GeoEye TIFF image without GTRasterTypeGeoKey tag delivers many repeat errors	When reading the GTRasterTypeGeoKey tag from a GeoEye TIFF image, the session log posts the following message 13 times: eWkspace(1724): ***WARNING NUMBER 1758 IN FUNCTION GeoTIFFGeoreferencingGet*** eWkspace(1724): >>>Cannot locate GTRasterTypeGeoKey; assuming RasterPixelIsArea<<<
IM-35798	ERDAS IMAGINE crashes on pressing Enter Key from keyboard after clicking on File > New	Launch ERDAS IMAGINE Select File > New Click on the White space below 2D View #1 New Options Press Enter Key

	white space	Observe that ERDAS IMAGINE crashes
IM-20588	Spatial Profile tool crashes when trying to calculate a second line of sight profile	Observed while performing tests to validate a M.App X geoprocessing service. Display a DEM Fit to Frame. On the Panchromatic tab select Spatial Profile. Say OK to the warning that no vector layers are displayed. Draw a line corner to corner of the DEM. Observe that a profile is drawn. In the Spatial Profile tool click the Edit menu and select Overlay Sight. Specify the height off the ground as 6 feet and click Apply. Observe that line of sight is calculated and overlaid onto the profile. Leave the Line of Sight overlaid. Select the digitise polyline tool and draw a new profile line (shorter than the original if you want). Observe that memory usage gradually goes up to 4GB and the profile tool eventually crashes (after several minutes). 16/03/15 09:58:56 SessionMgr(7376): advprofile.exe exited with status -1073741819. Instead, if Sight overlay was turned off before creating the new line, it would have worked fine.
IM-19745	TIFF DLL not handling multi-page TIFFs correctly	ERDAS IMAGINE 2013 correctly handled multi-page TIFFs. In ERDAS IMAGINE 2014, a regression crept in where only the first page of the TIFF can be displayed. All the pages in the TIFF can be seen in the Multi-Image tab, and all of the pages can be selected as sub-images, but the selected TIFF page is not displayed. Rather, the first page is displayed.
IM-21166	Alone Algorithm File Crashes ERDAS IMAGINE	Sequence to Reproduce: (1) Install ERDAS IMAGINE 2015, but do not include ER Mapper (2) Copy <IMAGINE_HOME>/examples/ermapper/miscellaneous/test_patterns/HSI_Wheel.alg to a folder on the local disk. (Do not copy the Demo_wheel.* files). (3) Open / Algorithm on the copy of the ALG file ERDAS IMAGINE terminates abnormally. It does not terminate if you copy the Demo_wheel files.
IM-13358	ERS DLL does not use ECW file referenced in ERS Header correctly	ERS DLL does not use ECW file referenced in ERS Header correctly. Add the two ERS header files referencing ECW files to MosaicPro Run the mosaic to a .ecw file A message appears once the process begins: ERS Raster error: Filetype Unknown error message when mosaicking .ers files. Mosaic slowly completes. Session Log: 02/12/13 10:01:47 C:/Program Files/Intergraph/ERDAS IMAGINE 2014/bin/x64URelease/mosaicprocesspro.exe -m c:/temp/mosaic_tmp_mos_008780 -temporary -background 0 -ignore 0 -excludeempty 0 -meter mosaic 02/12/13 10:01:56 SessionMgr(6056): ERROR: #46 from ersFileTitleIdentifyAndOpen 02/12/13 10:01:56 SessionMgr(6056): ERROR: erdas::ers::FileHandle::DoOpen failed 02/12/13 10:01:56 SessionMgr(6056): ERROR: #95 from erdas::ers::FileHandle::DoOpen

		02/12/13 10:01:56 SessionMgr(6056): ERROR: ERS Raster error: Filetype unknown 02/12/13 10:01:58 mosaicprocesspro(4312): One or more input files or output files cannot be opened by 64 bit MosaicProcessPro. Starting in 32 bit. 02/12/13 10:01:58 C:/Program Files/Intergraph/ERDAS IMAGINE 2014/bin/Win32Release/mosaicprocesspro.exe -m c:/temp/mosaic_tmp_mos_008780 -temporary -background 0 -ignore 0 -excludeempty 0 -meter mosaic
IM-18862	Opening ERS file gives incorrect NODATA message in Session Log	Launch ERDAS IMAGINE. In 2D View, open an ERDAS ER Mapper (*.ers) file, In Session log, see "16/12/14 08:33:25 eWkspace(14248): The input NullCell Value is out of range for the current pixel type 16/12/14 08:33:25 eWkspace(14248): The input NullCell Value is out of range for the current pixel type……."
IM-20601	Computing pyramids on a Virtual Mosaic (VMCX) pointing to 15k by 5k PNG throws a series of errors	Computing RRDs on a VMCX pointing to 15k by 5k PNG throws a series of errors. In Image Metadata, open the VMCS file and compute Pyramids. ERDAS IMAGINE throws a series of errors. After some time, Image Metadata crashes.

IMAGINE Advantage

Issue ID	**Summary – IMAGINE Advantage**	**Description / How to Reproduce**
IM-22547	Incorrect and inconsistent output parameters for orthorectification in both ERDAS IMAGINE and IMAGINE Photogrammetry	In trying to create Operators for Spatial Model for orthorectification we needed to look at the default behavior for orthorectification of calibrated images. Generally, when rectifying or reprojecting an image you want the default settings to never result in a loss of pixel information. Obviously this cannot be eradicated entirely (except by gross oversampling), but you want to generally produce an output image where few pixels have been dropped out from the input image. A rough measure of this is that no matter how rotated or warped the model is, the output would generally have to have more pixels than the input in order to preserve every input pixel. Unfortunately not only do the ERDAS IMAGINE output defaults often not meet this requirement, they are also frequently inconsistent between the numerous approaches you can take to producing a transformed output image. We need to be both consistent and correct. See specific NITF sample image Open the image in a 2D View. Click Image Metadata and note that the image is 8820 columns x 4696 rows. Scenario1: Multispectral tab / Transform & Ortho tab / Transform & Ortho menu, select Ortho Using Existing Model. Note in the dialog that the output image defaults to having only 6599 columns x 6278 rows. Given the nature of this image's geometric model, which is a "shear" into a parallelogram shape, the reduction in columns means that 1/3rd of the original image pixels will be missing from the output. Go ahead and produce the output and take a look at it – it has a degraded appearance. Scenario2: Multispectral tab / Transform & Ortho tab / Transform & Ortho menu, select

		Reproject. Set to Geographic / WGS84, which is the same as Scenario1. Note strange default pixel dimensions. Produce the output – note that this one is 8820 columns x 4696 rows – same as the input.
IM-33588	Horrendous edge artifacts introduced with Bicubic resampling	See data geometrically calibrated using RPCs. On the Multispectral tab / Transform & Ortho / Ortho Using Existing Model. In the Resample dialog, specify square pixels, ignore 0 in stats, use Elevation Library and set resampling to Bilinear. Specify output filename and OK. Display results in a 2D View with background set to red. Observe perfectly crisp left-hand edge of the image. Now repeat, but this time select Bicubic resampling. Observe nasty edge artifacts of near-black introduced around the edges of the data.
IM-41647	Condor processes using 32-bit Batch process for the jobs submitted from 64-bit ERDAS IMAGINE	From Submitting node, Distributed processing is started using Batch Command Editor of ERDAS IMAGINE 64-bit. On the Processing node, the job is processed using 32-bit Batch process instead of 64-bit Batchprocess.
IM-22790	MosaicPro should default to Bilinear when resampling must occur	MosaicPro should default to Bilinear when resampling must occur to ensure the best quality image by default. By default Nearest Neighbor is used and creates blocky and lower quality data than MosaicPro can deliver. Several other tools default to Bilinear when resampling is needed. MosaicPro should follow the move to better default data output.
IM-46606	Adding images with “Active Areas by Corners” is generating very bad output, whereas the “Active Area by Edges” is giving good output	Customer reported that in MosaicPro by adding images with “Active Areas by Corners” is generating very bad output, whereas the “Active Area by Edges” is giving good output. “Active Areas by Corners” was occasionally mis-identifying corners thereby clipping too much from the input data.
IM-25246	MosaicPro: sometimes leaves holes when creating specific dataset	Occasionally Seamlines in MosaicPro would result in small (1 pixel) gaps in the output mosaic
IM-45744	Reset button not working as expected in MosaicPro > Adjust individual image radiometry	1.Launch ERDAS IMAGINE, Launch MosaicPro from Raster tab > Geometry 2.Add images, make them visible and select from table 3.Click Adjust individual image radiometry, Change the brightness by dragging Brightness bar 4.Click Reset Button and observe Brightness bar reverting to original state but image still persist with brightness change. NOTE: Instead of reset button at the bottom if we click the reset brightness beside the brightness bar image reverting to original state.
IM-43093	Mosaic Express does not include Lagrange resampling method	Mosaic Express does not include Lagrange resampling method

IM-44279	MosaicPro Workstation crashed when opening a specific project	In some instances, where input images overlap each other almost 100%, crashes could occur.
IM-44912	Some input image is missing in mosaicking output	There are only two input images, the left and the right. They look good in MosaicPro workstation. However, the left is missing in the output file.
IM-48504	Toggling raster display after editing seam polygon crashes MosaicPro	Launch ERDAS IMAGINE 2018 Open MosaicPro, load two overlapping airphotos. Make the images visible and display the rasters. Click 'Automatically generate seamlines for intersections' button and in 'Seamline generation options' dialog, click ok. Click 'Edit seam polygons' and draw a polygon at the intersection. Observe seam polygon is edited. Now click 'Display raster images' and observe MosaicPro crashes.
IM-46883	running mosaicprocesspro.exe from Command window ignores TIFF compression parameter	When running mosaicprocesspro.exe from the Command window, the TIFF compression argument is ignored. The compression setting from the TIFF preferences is used instead. The help documentation for mosaicprocesspro states that "If you do not specify this option when the output is a TIFF image, the compression type specified in the TIFF preferences is used."

IMAGINE Objective

Issue ID	Summary – IMAGINE Objective	Description / How to Reproduce
IM-39533	Running FLS Segmentation crashed fe_process	Specific data would cause FLS Segmentation to run out of memory and crash.

IMAGINE Photogrammetry

Issue ID	Summary – IMAGINE Photogrammetry	Description / How to Reproduce
IM-47032	IMAGINE Photogrammetry ATE Report cannot be loaded using the Ribbon function	After a successful ATE run it is actually not possible to load the ATE Report by activating the Photogrammetry ribbon function "Reports/Automatic Terrain Extraction (ATE) Report". It seems that the blockfile name and the blockfile path are not saved properly when executing ATE (see line 8 and 9 of the ATE reportfile). Error messages and warnings reported in the session log: 18/12/18 14:16:30 SessionMgr(7256): ERROR: #2277 from StartATEReport 18/12/18 14:16:30 SessionMgr(7256): ERROR: eatm_DTMExtractionReport Failed 18/12/18 14:16:30 SessionMgr(7256): WARNING: #598 from eatm_DTMExtractionReport 18/12/18 14:16:30 SessionMgr(7256): WARNING: No valid report file exists 18/12/18 14:16:40 SessionMgr(7256): ERROR: #2277 from StartATEReport 18/12/18 14:16:40 SessionMgr(7256): ERROR: eatm_DTMExtractionReport Failed 18/12/18 14:16:40 SessionMgr(7256): WARNING: #598 from eatm_DTMExtractionReport 18/12/18 14:16:40 SessionMgr(7256): WARNING: No valid report file exists

IM-46924	3D ASCII output from Create Mean Terrain has characters for space making the output not useful	* Launch ERDAS IMAGINE 2018 64-bit. * Open a blockfile in the viewer. * From the Photogrammetry tab, under Generate drop down menu, click Create Mean Terrain. * In the Create Mean Terrain dialog, select 3D ASCII as Output DTM Type. * Give the name of the output and click OK in the dialog. Open the output in a text editor and notice that there are characters for spaces in the file. This makes the file not useable in any other tools like Surfacing tool.
IM-44828	Unable to import a project into IMAGINE Photogrammetry	1.Launch ERDAS IMAGINE 2018 2.Load any block file 3.Launch Import Inpho project from Photogrammetry Tab > Conversion group 4.Try to import InphoProject file of Type .prj , observe that you are not able to import as block file loaded in the input file field and trying to load .prj from file chooser is not showing the file in the respective folder
IM-48674	Unable to open SPOT-7 DIMAP V2 (DIM_SPOT.xml) projected (PRJ) raster data	SPOT-7 DIMAP V2 projected (PRJ) PMS data fails to open in ERDAS IMAGINE 2018 Launch ERDAS IMAGINE 2018 Right-click > Open Raster from the file chooser > Files of type select > SPOT DIMAP V2 choose DIM file DIM_SPOT7_PMS_*_PRJ_*.XML Error message appears. “Unknown DIMAP format”
IM-47013	No footprints when loading a block file with offline terrain file	A specific .blk adjusted in ERDAS IMAGINE 2016 can be open as expected in the LPS Project Manager, with footprints, etc. displayed. But if opened as a photogrammetric project, in ERDAS IMAGINE 2016 or 2018, only the CellArray displays, the footprints do not. And when you fit to frame or zoom out an error message displays. This is caused by an offline LTF file under the Terrains folder. Once you remove it, the error message is gone.
IM-48409	Block files created with an older version (ERDAS IMAGINE 2016 and earlier) are not compatible with IMAGINE Photogrammetry 2018	Block files created with an older version (2016 and earlier) are not compatible with IMAGINE Photogrammetry 2018 for the purpose of making orthophotos. Orthorectification with 2018 fails, generates corrupted image. Data is TiFF aerial RCD30 data.
IM-47866	IMAGINE Photogrammetry Orthoresample error with ADS L1 blk project	Orthoresample function with ADS L1 blk project fails with ERDAS IMAGINE 2018 Update 2. If you attempt to orthorectify L1 imagery you get a “Failed to recognize Authority Code” error.
IM-46599	Under Photogrammetry tab, Import ISAT, Inpho, PATB and SS project is not showing up the input files unless the format in the Import window is re-selected	1) Launch ERDAS IMAGINE -> Open any block file 2) Under Photogrammetry tab -> Import ISAT Project 3) In the Import window click open for Input File and browse to a location with ISAT Project files Observe that the ISAT project icon is not shown. Also for other 3 formats Inpho project, SS project and PATB project also the case is same, that is, the respective format files do not show. But if Format is re-selected in the Import window, then the input files do show.
IM-41918	Deleted points in .las are still there after exporting to HPC file	Several point clouds in LAS format were edited in IMAGINE Professional to remove incorrect elevation points. The resulting LAS were now used in GeoMedia 3D using the HPC Point Clouds workflow to Construct a HPC and then insert the resulting HPC into an access warehouse, The two processes ran with no error.

		The HPC is now displayed in GeoMedia 3D. The points previously edited in ERDAS IMAGINE are still there.
IM-45013	Height Above Ground tool does not preview and throws error message	ERDAS IMAGINE 2018 1) Launch ERDAS IMAGINE > Terrain tab > Height Above Ground 2) Provide a classified LAS file as input 3) Give input raster elevation file 4) Give output name 5) Click Preview button Observe that it throws this error saying: No PreviewOperators in model.
IM-46256	Errors pop up if a file from recent list is opened on top of a point cloud preview	Data: GMDX, LAS, SHP and IMG files of the same project area Steps to reproduce: * Open the LAS, SHP and IMG files in the 2D View. * Clear the View and launch Spatial Modeler Editor. * Open a gmdx file and give the LAS file from the project as input to the Point Cloud Input operator. * Click on Preview. * Once the preview is up and the Preview View selected, from the Point Cloud tab select Classification in the Color by drop down menu. * From File > Recent select either the SHP or IMG file that were previously opened in the 2D View. Notice that error pop up. Session log: 26/09/18 14:38:44 SessionMgr(26760): ERROR: #124 from ArrangeLayersCB 26/09/18 14:38:44 SessionMgr(26760): ERROR: erdas::EmlFramework::ShellMeter::Create failed 26/09/18 14:38:44 SessionMgr(26760): ERROR: #56 from erdas::EmlFramework::ShellMeter::Create 26/09/18 14:38:44 SessionMgr(26760): ERROR: Trying to change a running meter from modal to non-modal is not supported!
IM-40464	Loading a specific LAZ file as Raster crashes ERDAS IMAGINE	1.Launch ERDAS IMAGINE 2018 2.Load the file specific .laz ,by selecting files of type as LAZ as Raster (.laz) (not LAZ as Point Cloud (*las)) 3.Observe ERDAS IMAGINE crashes. When the same file is opened as LAZ as Point Cloud(.las), ERDAS IMAGINE does not crash
IM-49425	ERDAS IMAGINE 2018 Update 2 is unable to open customer's *.las file	Customer reported that ERDAS IMAGINE is unable to open their las and laz files. According to the customer the same las file opens in a popular GIS application. In ERDAS IMAGINE the following error messages show in the session log, while opening the customer's las in a 2D View 24/06/19 00:30:42 SessionMgr(12944): Connection success for the external process 'eWkspace_64' 24/06/19 00:31:27 SessionMgr(12944): ERROR: #192 from vr_lidarvlLayerOpen 24/06/19 00:31:27 SessionMgr(12944): ERROR: erdas::laslib::GenericVlr::Read failed 24/06/19 00:31:27 SessionMgr(12944): ERROR: #228 from erdas::laslib::GenericVlr::Read 24/06/19 00:31:27 SessionMgr(12944): ERROR: emif_ConvertToMIF failed 24/06/19 00:31:27 SessionMgr(12944): ERROR: #6148 from emif_ConvertToMIF 24/06/19 00:31:27 SessionMgr(12944): ERROR: emif_MIFtoObject failed 24/06/19 00:31:27 SessionMgr(12944): ERROR: #6207 from emif_MIFtoObject 24/06/19 00:31:27 SessionMgr(12944): ERROR: Invalid object or design!

IM-47189	ERDAS IMAGINE crashes with point cloud polyline profile	1.Launch ERDAS IMAGINE 2.Load a point cloud image, Select point cloud Tab 3.From Profile group, select Polyline Profile 4.Draw a polyline and end it by single mouse click and double click Left Mouse button at the exact same point 5.Observe ERDAS IMAGINE crashes.
IM-45910	ERDAS IMAGINE 32-bit crashes while trying to pan in the HPC file's profile views after zoom is performed	* Launch ERDAS IMAGINE 2018 32-bit and load a HPC file. * From the Profile group of Point Cloud tab, click the Rectangle Profile option and draw a rectangle in the viewer. * In either the Sideview Profile viewer or the Frontview Profile viewer, zoom in and then pan using either the middle mouse button or the pan tool from the Home tab. Notice that ERDAS IMAGINE crashes. ERDAS IMAGINE 2018 64-bit doesn't crash but only shows up error while panning. Session log: _31/08/18 15:16:56 SessionMgr(3096): ERROR: #4 from EFGA_DERIVEPOLYCOEFS_ _31/08/18 15:16:56 SessionMgr(3096): ERROR: EFGA_SOLVELINEAREQS failed_ _31/08/18 15:16:56 SessionMgr(3096): ERROR: #4 from EFGA_SOLVELINEAREQS_ _31/08/18 15:16:56 SessionMgr(3096): ERROR: egda_MatrixDivide failed_ _31/08/18 15:16:56 SessionMgr(3096): ERROR: #6 from egda_MatrixDivide_ _31/08/18 15:16:56 SessionMgr(3096): ERROR: egda_MatrixDivideF64 failed_ _31/08/18 15:16:56 SessionMgr(3096): ERROR: #2 from egda_MatrixDivideF64_ _31/08/18 15:16:56 SessionMgr(3096): ERROR: egda_MatrixLUDecomposition failed_ _31/08/18 15:16:56 SessionMgr(3096): ERROR: #7 from egda_MatrixLUDecomposition_ _31/08/18 15:16:56 SessionMgr(3096): ERROR: egda_MatrixLUDecompositionF64 failed_ _31/08/18 15:16:56 SessionMgr(3096): ERROR: #1 from egda_MatrixLUDecompositionF64_ _31/08/18 15:16:56 SessionMgr(3096):
IM-45741	While Exporting to ISAT project for which sensor models are Unsupported, the exportisat.exe process crashes	# Launch ERDAS IMAGINE # File > New > Photogrammetric Project and give the path of the Block fie to be saved # Select *Rational Functions* for Geometric Model Category and *Quickbird* *RPC* for Geometric Model on Model Setup dialog and Click OK # Leave the default settings on Block Property Setup dialog and Click OK # Now add NITF format QuickBird images to the block file # Save the Block file and go to Conversion group > *Export to ISAT Project* # Provide output project name and Hit OK # Observe that the exportisat.exe crashes while exporting to ISAT project Note: Similar is the observation for Formosat2 orbital pushbroom model, Triplesat RPC
IM-43782	Failure at the end of the process due to tridicon intermediate files limitation	To produce a DSM with 6 granules of satellite images, customer uses the Semi-Global Matching (SGM) tool. The first step of SGM is to calculate Tridicon Intermediate files for each pair of images. If a Tridicon intermediate file generated is bigger than 4GB, ERDAS IMAGINE returns an error and stop the process (since the Tridicon software does not support BigTIFF). If possible please compute output intermediate image size in advance, for example

		displaying a warning to prevent having to wait until at the end of the process before it fails.
IM-48126	ERDAS IMAGINE crashes while trying to get the report after changing the Remove Points over n Standard Deviations value multiple times	ERDAS IMAGINE 2018 Update 2 64-bit 1) Launch ERDAS IMAGINE > Load a specific Block File > Launch Stereo Point Measurement (SPM) 2) Under SPM > Tools > launch Tie Point Uncertainty Analysis 3) Change the value of Remove Points over n Standard Deviations to 0 and Apply > Click Report > Observe that Report launches 4) Now again Change the value of Remove Points over n Standard Deviations to 0 and Apply > Click Report and again repeat the same step Observe that ERDAS IMAGINE crashes while trying to get the report after changing the value of Remove Points over n Standard Deviations multiple times.
IM-47477	Under Stereo Point Measurement (SPM) Viewing Properties in Image Correlation texts are not properly visible for Correlation Contrast	1) Launch ERDAS IMAGINE > File > Open > Photogrammetric Project > open a specific Block project 2) Launch Stereo Point Measurement Tool from Point Measurement dropdown menu 3) In SPM under Tools Menu launch Viewing Properties, select Image Correlation tab Observe that the Text for 'Low' and 'High' are not visible properly

IMAGINE Professional

Issue ID	**Summary – IMAGINE Professional**	**Description / How to Reproduce**
IM-20641	Every so often an ECW in a batch list fails to calculate stats	Running a batch statistics/histogram calculation (32-bit application) with a total of more than 5000 ECWs; running 3 jobs in parallel. Each image is 4000 x 4000 x 3bands x ECW v2. Every so often, an ECW fails to calculate stats. Locate the ECW, open it in the Viewer, it displays fine and is visually fine. Open the ECW in Image Metadata, it looks fine. Calculate stats, and the process completes fine. Failure in Session log states: imagecommand.exe exited with status -1073741819.
IM-45743	Number of output files produced is not the same as number of inputs provided in Batch, Start Processing Later At	1.Launch Unsupervised Classification from Raster tab > Classification > Unsupervised 2.Provide the input file, specify output file, provide required number of classes and click on Batch 3.Now select variables as one input, one or more outputs 4.Add three more files, click on submit , select Start Processing Later At 5.Provide Simultaneous Processes as 4 and click OK 6.Provide the proper credentials and click Ok 7.Scheduled batch process listed and process become active at start time and done after a while. 8.Observe the output folder. The outputs produced are one or two files, rather than the expected four. This is not the case with Batch > Start Processing Now
IM-36818	Spatial Modeler batch command file (.bcf) is not saved from the Batch Command Editor	Spatial Modeler batch command file (.bcf) is not saved from the Batch Command Editor when accepting the default batch command name after clicking OK To recreate: - Open Spatial Model - select Run in Batch (opens the Batch Command Editor)

		- select Save. The Batch Command file chooser opens with the temp batch filename. - select OK. The batch command file is not saved in the default temp location If you manually add the .bcf extension, the batch command file is saved. If you change the name, the batch command file is saved. If you redirect to a different folder, the batch command file is saved. If you click <Enter> instead of OK, the file is saved.
IM-8447	Spectral Euclidean Distance value continues to change when clicking other areas than the nudgers	In the Region Growing Properties tool, the Spectral Euclidean Distance nudger is "sticking" when changing the value and then proceeding to grow regions in the 2D View. The Spectral Euclidean Distance value continues to be adjusted even though the mouse clicks are elsewhere in the ERDAS IMAGINE interface. This problem does not occur in ERDAS IMAGINE 2011. The Region Growing Properties dialog did not have a thumbwheel for adjusting the Spectral Euclidean Distance in 2011, so maybe that is contributing to the problem. Steps to reproduce: Display the raster file lanier.img in a 2D View. Open the Region Growing Properties tool (Drawing tab > Insert Geometry group > Grow menu > Growing Properties). Click the Grow icon (Drawing tab > Insert Geometry group > Grow) to place a seed pixel in an area of water. Click on the up nudger a couple of times to increase the Spectral Euclidean Distance value. Now click on an empty area in the Region Growing Properties tool and notice that the Spectral Euclidean Distance value continues to change and the polygon region in the 2D View continues to grow to reflect the change of the Spectral Euclidean Distance value. Even if you click elsewhere in the ERDAS IMAGINE interface, the Region Growing Properties tool remains active and the Spectral Euclidean Distance value continues to change.
IM-45028	Image Alarm crashes 64-bit version of ERDAS IMAGINE 2018	Image Alarm tool crashes ERDAS IMAGINE 2018 64-bit. Session log reports "Unusual file mapping size 264248". The 32-bit versions of ERDAS IMAGINE 2018 and ERDAS IMAGINE 2016 Update 1 do not crash when using this tool. Steps to reproduce: # Display Multispectral image in a 2D View # Start the Signature Editor. (Raster tab > Classification group > Supervised menu > Signature Editor). # Open a signature file derived from the Multispectral image. # Re-associate the signature file and the image. (Signature Editor > Edit menu > Image Association) # Select one of the rows in the Signature Editor. # Start the Signature Alarm tool. (Signature Editor > View menu > Image Alarm) and click OK. # Click inside the 2D View. # ERDAS IMAGINE 2018 crashes.
IM-47545	Unsupervised classification generates output with a missing block of data	Unsupervised classification generates output with a missing block of data. Failure appears be related to the number of classes to be created and to the output file type (i.e. TIFF). A specific lower and upper range fails when writing TIFF output. Using this same range works when writing IMG output. Specifying a different number of output classes works when writing TIFF output. If the input TIFF file is converted to IMG and used as input, the problem is not seen. These errors are seen when the failure occurs

		06/02/19 11:37:39 SessionMgr(14936): etif_HandleBlockRead failed 06/02/19 11:37:39 SessionMgr(14936): etif_HandleBlockRead failed 06/02/19 11:37:39 classifyisodata(2656): Creating signature file: C:/Temp/imagine/name 06/02/19 11:37:39 SessionMgr(14936): etif_HandleBlockRead failed 06/02/19 11:37:40 SessionMgr(14936): etif_HandleBlockRead failed
IM-46109	classifyisodata.exe crashes for running Unsupervised classification operator to an ECW output	In ERDAS IMAGINE, open Spatial Model Editor. Drag and Drop Unsupervised classification operator. Double click the operator and specify 'Input Raster Layer' and 'Output cluster layer'. Input raster can be any format e.g. img. Output format should be ECW. Click ok and run the model. Observe run fails and session log info is as below: external process exited with status -1073741819.
IM-47278	Geophysical Processing not working in ERDAS IMAGINE 2018	1.Launch ERDAS IMAGINE 2018. 2.Launch Geophysical Processing from Raster > Classification > Unsupervised 3.Provide the input as lanier.img , provide the output and click ok 4.Observe Process failing and session log showing errors Session log: 18/01/19 18:25:40 SessionMgr(11576): Connection success for the external process 'eWkspace' 18/01/19 18:26:08 eWkspace(6800): Loading [geophysical.eml]... 18/01/19 18:26:37 C:/Program Files/Hexagon/ERDAS IMAGINE 2018/bin/x64URelease/smprocess.exe $IMAGINE_HOME/etc/models/HorizonDip_NoClip.gmdx Raster Input.Filename=d:/2019/data_delete/lanier.img Raster Output.FilenameIn=d:/2019/16-01-2019/delete/geop.img Raster Output.PixelType=F64 Band Selection.BandRange=1:1 18/01/19 18:26:37 eWkspace(6800): Unloading [geophysicalalgorithms.eml]... 18/01/19 18:26:38 SessionMgr(11576): Running spatial model ($IMAGINE_HOME/etc/models/HorizonDip_NoClip.gmdx) with port values (Raster Input.Filename=d:/2019/data_delete/lanier.img,Raster Output.FilenameIn=d:/2019/16-01-2019/delete/geop.img,Raster Output .PixelType=F64,Band Selection.BandRange=1:1). 18/01/19 18:26:38 18/01/19 18:26:38 smprocess: 18/01/19 18:26:39 SessionMgr(11576): HexGeo::SpatialModeler::Operator::Execute failed 18/01/19 18:26:39 HexGeo::SpatialModeler::Operator::Execute failed 18/01/19 18:26:39 HexGeo::SpatialModeler::Operator::Execute failed 18/01/19 18:26:39 HexGeo::SpatialModeler::Operator::Execute failed 18/01/19 18:26:39 HexGeo::SpatialModeler::Operator::Execute failed 18/01/19 18:26:39 HexGeo::SpatialModeler::Operator::Execute failed 18/01/19 18:26:39 HexGeo::SpatialModeler::Operator::SetErrorMessage failed 18/01/19 18:26:39 Spatial Model failed in Raster Input. The error was "No valid input Filename available". 18/01/19 18:26:39 SessionMgr(11576): Spatial model failed. 18/01/19 18:26:39 18/01/19 18:26:39 SessionMgr(11576): smprocess.exe exited with status 1.

IM-47261	Loading JP2 output from Unsupervised classification crashes ERDAS IMAGINE	1.Launch ERDAS IMAGINE 2.Launch Unsupervised classification from Raster > Classification > Unsupervised 3.Provide the input as lanier.img 4.Provide the output as unsuper.jp2 (File of type:JPEG2000) 5.Provide the number of classes as 3 and click OK 6.Process fails,, ignore it and try to load output from File open > Recent button 7.Obvserve ERDAS IMAGINE crashes.
IM-47533	LaGrange resampling method not present in Geophysical Processing dialog	1.Launch ERDAS IMAGINE 2.Select Geophysical Processing from Raster > Classification > Unsupervised > Geophysical 3.Observe LaGrange resampling method not present but help page contain LaGrange also
IM-46046	Opening this Hyperspectral Image is slow through Image Chain	Open a specific .hdr hyperspectral image through Image Chain. Takes way too long.

IMAGINE SAR Interferometry

Issue ID	Summary – IMAGINE SAR Interferometry	Description / How to Reproduce
IM-45591	Coherence image produced by sentinel Swath CCD (mosaic) crashes 2D View	Coherence image produced by sentinel Swath CCD (mosaic) crashes viewer. Simply open the image after mosaic

Spatial Modeler

Issue ID	Summary – Spatial Modeler	Description / How to Reproduce
IM-49746	Preview operator: Is not automatically re-projecting feature data when a Basemap is displayed	This problem occurs in ERDAS IMAGINE as well as in the Spatial Model Editor. A feature layer can be added to a 2D View window. When this occurs, the window recognizes and displays the data using the appropriate coordinate system. If a Basemap is displayed in the window, the feature data is automatically re-projected to register to the Basemap - in this case OpenStreetMap, which uses EPSG 3857. Following a similar workflow using the Preview command to display the feature data, the data is not automatically re-projected (correctly) when a Basemap is displayed in the Preview window.
IM-46647	OLH-Description of one port missing in help for Machine Intellect Information operator	1.Launch ERDAS IMAGINE 2018, and then launch Spatial Model Editor 2.Drag the Machine Intellect Information operator to Spatial Model Editor. 3.Observe MethodInformation port exists. 4.Launch help page and observe no description MethodInformation port and the screenshot also needs to be updated.
IM-46629	OLH-Description of one port missing in help for Image Segmentation FLS operator	1.Launch ERDAS IMAGINE 2018, and then launch Spatial Model Editor 2.Drag the Image Segmentation FLS operator to Spatial Model Editor. 3.Check ON the Show All Ports option and observe Max Tile Size port exists. 4.Launch Help page and observe no description for Max Tile Size port

IM-46028	Proximity (and Cost) Spread operator's Help references a deprecated capability	Start Spatial Model Editor Drag the Proximity Spread (or Cost Spread) operator onto the canvas Display the AutoStudyArea port Right-click on the Operator and select Help In the Help, look at the section for the AutoStudyArea port. It states: "If set to True, the StudyArea will be set to the same extent as the extent of OriginPointsRasterIn file. If set to False, the StudyArea is determined by the settings of Processing Properties dialog for the particular Spatial Model. Default setting is True." But there is no longer have a "Processing Properties dialog" Seems like the port has no purpose any more.
IM-46624	OLH-Description of two ports missing in help for Raster Attribute Output operator	1.Launch ERDAS IMAGINE 2018, and then launch Spatial Model Editor 2.Drag the Raster Attribute Output operator to Spatial Model Editor. 3.Check ON the Show All Ports option and observe Low Fill , High Fill exist. 4.Launch Help page and observe no description for Low Fill , High Fill ports and also show all ports figure missing.
IM-46623	OLH- No help for Sort Method in ICA operator.	1.Launch ERDAS IMAGINE 2018, and then launch Spatial Model Editor 2.Drag the ICA operator to S Spatial Model M Editor. 3.Click on SortMethod port and launch help from SortMethod dialog pop-up 4.Observe Help page navigating to errors page
IM-46735	OLH for Machine Intellect Information operator needs to be updated	A new output port, MethodInformation, was added to the operator in v16.5.2. But the OLH does not describe that port.
IM-46543	OLH-Create Centroid operator figure to be updated in help page.	1.Launch ERDAS IMAGINE 2018 Update 2 2.Launch Spatial Model Editor and drag Create Centroid operator to Spatial Model editor 3.Launch online help and observe figure in help page and figure in UI are not same.
IM-46564	OLH- Multi Filename input operator should be updated with Default and show all ports figures.	1.Launch ERDAS IMAGINE 2018 Update 2 2.Launch Spatial Model Editor, drag Multi Filename input operator to Spatial Model editor and launch help 3.Observe operator in UI having only three ports but help shows four ports. Shown in UI by checking ON Show all ports
IM-45008	Some operators to be updated with show all ports in the Help	1.Launch IMAGINE 2016, Spatial modeler, check on show all ports. 2.Drag these operators from the Surface category: * Aspect * Degreeslope * Insolatio * LeastCostPath * Percent Slope * Relief 3.Click on each operator help and observe that help needs to be updated with figures corresponding to show all ports.
IM-46027	Proximity Spread operator's Elevation Restriction dialog has no Help	Start Spatial Model Editor Drag the Proximity Spread (or Cost Spread) onto the canvas Display the Elevation Restriction port Double-click the Elevation Restriction port to bring up the Elevation Restriction dialog. Click Help Help goes to the generic Help Error page
IM-47761	Screenshot in the Generate Functional	The screenshot of the Generate Functional Attributes operator in its OLH mentions it as Functional Attributes. So the screenshot should be updated. Please see the

	Attributes operator OLH should be updated	attached screenshot.
IM-46597	OLH- Create Buffer Ring operator help showing Inner Distance default value as Nearest Neighbor.	1.Launch ERDAS IMAGINE 2018 Update 2 2.Launch Spatial Model Editor from File > New 3.Drag Create Buffer Ring operator to Spatial Model Editor and launch help 4.Observe Inner Distance port showing default value as Nearest Neighbor, which was incorrect.
IM-46596	OLH-Create Buffer Ring figures are placed instead of Create Buffer Zone in help page.	1.Launch ERDAS IMAGINE 2018 Update 2, Launch Spatial Model Editor. 2.Drag Create Buffer Zone operator and launch Help. 3.Oberve Create Buffer ring operator figures are placed instead of Create Buffer Zone
IM-46213	Join Features operator when Previewed for 2 features with different Projection types, Preview is not correct even after Fit to Frame	ERDAS IMAGINE 2018 Update 2 1) Launch ERDAS IMAGINE > Toolbox Tab > Spatial Model Editor 2) Open specific Spatial Model and then Preview 3) Observe that the preview is blank initially, now Do Fit to Frame for the 2D Viewer Observe that the Features are not visible properly until its zoomed in Note: 1) Here the FeaturesInLeft is having an input with State Plane projection and FeaturesIn Right is having UTM projection 2) Even the other way around i.e., FeaturesInLeft with UTM projection and FeaturesIn Right with State Plane also has the same problem 3) If both the Features of same projection, it shows the features properly after Fit to Frame
IM-46714	Summarize Related Features to Preview or Feature Output fails for specific geometry-based expression	ERDAS IMAGINE 2018 Update 2 Spatial Model contains two Features Input , Summarize Related Features, Preview and Features Output operators: -> on preview, displays blank Preview. -> running the model, errors out at Features output and creates a 1kb shp and shx file; 0kb dbf file. (02/11/18 15:20:32 SessionMgr(8900): Executing spatial model 02/11/18 15:20:32 SessionMgr(8900): erdas::sb_CGP::FeaturesOutput::OnExecute failed 02/11/18 15:20:32 Unable to cast object of type 'Intergraph.Geometry.GDOBlob' to type 'System.Byte[]'. 02/11/18 15:20:32 SessionMgr(8900): Spatial model execution failed.)
IM-46560	Default Values are not set in the ports of Create Buffer Ring and Create Buffer Zone operator	ERDAS IMAGINE 2018 Update 2 Default values of the Distance Units, Linear End Caps and Geometry Field Name are not set in the Operator UI as per the documentation of Create Buffer Ring and Create Buffer Zones operators Also if the Geometry Filed name is set it doesn't seem to add the field name in the output
IM-47759	Expression allowed in the Generate Functional Attributes operator errors out when executed	ERDAS IMAGINE 2018 Update 2 Open a specific Spatial Model containing a Generate Functional Attributes operator and click Preview 20/02/19 11:16:45 SessionMgr(57492): ERROR: #125 from featuresvlLayerCreate 20/02/19 11:16:45 SessionMgr(57492): ERROR: Error happened during compilation of the expression with message: System.CodeDom.Compiler.CompilerErrorCollection.
IM-48952	The datatype in the user interface (UI) for a port of some operators isn't in	The datatype for a port of the following operators in the UI is HexagonGeospatial.FeaturesAnalysis.FunctionalAttribute. Whereas in the OLH it is IMAGINE.FunctionalAttribute.

	sync with OLH.	* SummaryAttribute1 port of Summarize Related Features operator * Functional Attribute1 port of Generate Functional Attributes operator * Functional Attribute port of Define Functional Attribute operator * SummaryAttribute1 port of Merge Features operator UI and OLH for these operators should be in sync.
IM-48349	Running “Raster Statistics per Feature” operator is hanging and eventually crashing ERDAS IMAGINE	Customer reported that they tried to run the “Raster Statistics per Feature” operator to get the mean value of a polygon. When they run the process, ERDAS IMAGINE is hanging and eventually crashing.
IM-48363	Input calibrated files are incorrectly placed in output PDF by Create Geospatial PDF operator	Run specific Spatial Model. Open the output pdf file. Observe output of ERDAS IMAGINE 2018 Update 2 are incorrectly placed. Valid output is created in ERDAS IMAGINE 2016 only.
IM-41134	Progress bar stays at 0% when running Machine Learning operators	All Python-based Machine Learning operators have this problem.
IM-46592	Executing Machine Learning (ML) Process -session log pointing to unknown classification server	1.Launch ERDAS IMAGINE 2018 Update 2 and change to Machine Learning Layout. 2.Select ML Train and train a model by collecting image chips for a few classes. 3.Now select ML Process tab, create a Project and try to execute the ML Process by selecting the model created in step2. 4.Observe that session log showing classification server pointing to C:/tf_jenkins/workspace/rel-win/M/….etc. This does not exist in the system. NOTE: In this work flow execution was success and classification done. Session log: 22/10/18 15:15:51 C:/Program Files/Hexagon/ERDAS IMAGINE 2018/bin/x64URelease/MachineLearningProcessChain.exe d:/2018/19-10-2018/lauoutproject2.mlp 1 Run 1 22/10/18 15:15:57 SessionMgr(3436): Starting classification server process... 22/10/18 15:16:27 SessionMgr(3436): Classifying C:/Users/agangumo/AppData/Local/Temp/SPATIAL_MODELER-5ec4-774c-9a62-155a-009920/cc4ac0f0-17a9-492c-ba2c-92a297e68855img 22/10/18 15:16:27 SessionMgr(3436): classification server: 2018-10-22 15:16:27.207485: I C:¥tf_jenkins¥workspace¥rel-win¥M¥windows-gpu¥PY¥35¥tensorflow¥core¥platform¥cpu_feature_guard.cc:140] Your CPU supports instructions that this TensorFlow binary was not compiled to use: AVX2 22/10/18 15:16:27 SessionMgr(3436): classification server: 2018-10-22 15:16:27.539761: I C:¥tf_jenkins¥workspace¥rel-win¥M¥windows-gpu¥PY¥35¥tensorflow¥core¥common_runtime¥gpu¥gpu_device.cc:1212] Found device 0 with properties: 22/10/18 15:16:27 SessionMgr(3436): classification server: name: Quadro M1200 major: 5 minor: 0 memoryClockRate(GHz): 1.148 22/10/18 15:16:27 SessionMgr(3436): classification server: pciBusID: 0000:01:00.0 22/10/18 15:16:27 SessionMgr(3436): classification server: totalMemory: 4.00GiB freeMemory: 3.35GiB
IM-47764	Doc: Classify using machine learning has a limitation on raster data type that needs to be	Raster Classification using Machine Learning fails if the data has No Data set or if the data type is Double. Here is the error message from the session log. 12:16:13 SessionMgr(9000): Input contains NaN, infinity or a value too large for dtype('float32').

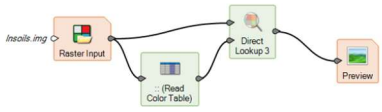
	documented	
IM-47505	Initialize Inception operator performs validation test even when no data is set aside for validation	It seems Initialize Inception always performs validation even when no data is set aside for validation. With Validation percentage set to zero, I still get some percentage values. In the session log, I see this Step 99: Validation accuracy = 84.0(N=100) This should not be the case if I have not reserved any data for validation.
IM-43613	Criteria Selection on the Probability field in Machine Learning Layout crashes ERDAS IMAGINE	On the File tab, change to the Machine Learning Layout Load a project that you've already trained and classified. Load the results. In the Change Likelihood Rank panel right click in the Row column and select Criteria... Use the Selection Criteria dialog to specify $"Probability" > .5 Click Select. ERDAS IMAGINE crashes
IM-42556	Session log records a warning message when running a model consisting of Machine Learning operators	Steps To Reproduce: (1) Create a valid model with any of the Machine Learning operators. (2) Run the model Observation: Session log records a warning message as below: {color:#d04437}11/12/17 13:54:21 eWkspace_64(17412): WARN com.hexgeo.smsdk.spatialmodeler.core.Data - SizeInBytes must be implemented for data type: IMAGINE.FeatureSubset{color}
IM-42504	Zonal Max operator does not support float data	Zonal Max operator only outputs integer data. This causes a problem if the input is data type is float - the output values lose precision. It really causes a problem if the input data type is float and the values are negative - the Zonal Max always outputs a value of 0 instead of the true negative zonal max value. Whereas the Zonal Attributes tool (Save Zonal Statistics To Polygon Attributes) outputs correct zonal max floating point values.
IM-42614	Select Attributes is throwing an error dialog on removing all the attributes from the included list	Steps to reproduce: (1) Create a spatial model as follows: Feature Input > Select Attributes > Initialize Naive Bayes > ... (2) In 'Feature Input' select any shapefile that has some attributes defined. (3) On 'Select Attributes' operator double-click on the 'AttributeNames' port to bring up Select Attributes dialog. (4) From the 'Available Attributes' list add couple of attributes to the 'Included Attributes' list. (5) Once the attributes are listed in the 'Included Attributes' list, remove both the listed attributed by clicking "<" tool bar icon. Observation: (6) An error dialog is thrown when the last attribute from the list is removed Session log records: _{color:#d04437}13/12/17 12:43:42 SessionMgr(4132): ERROR: #223 from ScrollList::SelectByPos(){color}_ _{color:#d04437}13/12/17 12:43:42 SessionMgr(4132): ERROR: eeml_ScrollListSelectByPos failed{color}_ _{color:#d04437}13/12/17 12:43:42 SessionMgr(4132): ERROR: #2 from eeml_ScrollListSelectByPos{color}_ _{color:#d04437}13/12/17 12:43:42 SessionMgr(4132): ERROR: Scrollist has no members in the set!{color}_
IM-48617	Convert to Surface	Convert to Surface fails if it is used in combination with other point cloud operators.

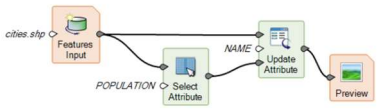
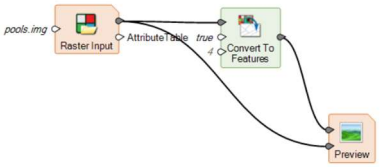
	operator fails if it is used in combination with other point cloud operators	But if the intermediate result is saved to a file and the file is then used as an input to convert to surface operator, it works fine.
IM-48885	Stack Max operator does not output correct value if the input is a negative floating point number	Stack Max operator always returns a value of 2.22507e-308 if the input value is negative and the data is 64-bit floating point. It returns a value of 1.17549e-038 if the input is 32-bit floating point data. These are not the correct values. 2.22507e-308 is the maximum value for the floating point 64-bit data and 1.17549e-038 is the maximum value for the floating point 32-bit data. Stack Max operator provides the correct output value if the input is a negative 8-bit or 16-bit value. This problem does not occur with ERDAS IMAGINE 2016 Update 1.
IM-46535	Measure Area is affecting the geometries (some large holes are being filled)	ERDAS IMAGINE 2018 Update 2 A Spatial Model was built which takes an input shapefile, merges features and then measures the Area of each feature. The result of the merge appears to be correct, but the result of the subsequent Measure Area are wrong - large holes in the original geometries have been filled (i.e. removed). Measure Area should not affect the geometries at all! Measure Perimeter has the same effect on the geometries. Also tried Measure Length and Measure Center and they all modified the output geometries. As a workaround, use Generate Functional Attributes again.
IM-49761	Spatial Model changes datum of input feature data	When processing input feature data that are projected to Lambert Conformal Conic with the datum “MGI AT (EPSG: 1618)”, the output features and raster data have a different datum, which causes a shift of approximately 300 meters in the X-direction. The output features data are assigned the datum “MGI”. The output raster data is assigned the datum “Militar-Geographische Insttut [To WGS 84 8]”.
IM-44602	Producing ER Mapper (*.ers) file from vector file throwing error in ERDAS IMAGINE 2018	1.Launch ERDAS IMAGINE 2018 2.Launch Spatial Model Editor, create model Features Input > Convert to Raster > Raster Output 3.Provide the input as *cities.shp* and output raster as *ermapp.ers* 4.Run the model and observe an error thrown Vector<T> too long
IM-46625	One extra port (Expression) shown for the operator Point Cloud Build Selection Criteria operator in UI	1.Launch ERDAS IMAGINE 2018 Update 2, launch Spatial Model Editor 2.Drag Point Cloud > Build Selection Criteria operator to Spatial Model Editor. 3.Check ON show all ports, observe Expression port present. This is not explained in Help.
IM-46381	OLH Default values disagree with Filter By Geometries operator	1.Launch ERDAS IMAGINE 2018 Update 2 2.Launch Spatial Model Editor from File > New 3.Drag Filter By Geometries operator to Spatial Model Editor 4.Click SpatialOperator port and observe default value is set to Meet but OLH says default value is Touch
IM-39578	Convolve a F32 DEM using non-normalised Kernel, fails with Unable to allocate OpenCL Image message	Open specific spatial model in the Editor. Click Run See these messages in the Message panel and the model fails to run: Unable to allocate OpenCL Image Unable to allocate OpenCL Image Unable to allocate OpenCL Image Unable to allocate OpenCL Image Unable to allocate OpenCL Image Unable to allocate OpenCL Image

		Unable to allocate OpenCL Image Unable to allocate OpenCL Image If you change the Input Raster from Native Type to Float (which should be the same) the model runs successfully. Or, you can leave it as Native Type, but change Normalize to True on the input kernel. That works as well. Note – if you close ERDAS IMAGINE after attempting (and failing) to run this model, you get a Runtime Error.
IM-45023	Initial input values in Spatial Model Editor causes errors	Spatial Modeler reports an error on initial inputs. Test Model is in: ¥¥alpha¥JIRA_data¥IM-45023 Open Spatial Modeler Scenario 1: # Load model from above folder # Run model # When the dialog opens, press "OK" without changing any values. # Output should report an error.
IM-45259	Slope to NTF give errors in the session log	Run a specific Spatial Model which generates slope from a DEM and outputs to NITF format. Notice the errors in the session log: 09/07/18 11:14:43 SessionMgr(18828): ERROR: #22935 from eimg::details::SSLayerGetNames 09/07/18 11:14:43 SessionMgr(18828): ERROR: <NULL> failed 09/07/18 11:14:43 SessionMgr(18828): ERROR: #67 from <NULL> 09/07/18 11:14:43 SessionMgr(18828): ERROR: eimg_FileImageNamesGet failed 09/07/18 11:14:43 SessionMgr(18828): ERROR: #14930 from eimg_FileImageNamesGet 09/07/18 11:14:43 SessionMgr(18828): ERROR: eimg_FileOpen failed 09/07/18 11:14:43 SessionMgr(18828): ERROR: #5968 from eimg_FileOpen 09/07/18 11:14:43 SessionMgr(18828): ERROR: c:/work/output.ntf.r2: eimg_FileOpen failed (33:Unsupported Raster format or non-Raster format) It looks like when outputting NITF in this case, we try to compute stats while generating RSETs, which tries to open the RSET as it's being generated (and fails). It doesn't seem to negatively affect the process though.
IM-46858	Rename Attributes does not work	Open a specific Spatial Model desinged to take an input shapefile, attempts to rename one of the attribute fields and write out a new shapefile. However if you click Preview (or Run) you'll get this error: Spatial Model failed in Rename Attributes. The error was "HexGeo::SpatialModelerFeatures::Feature::TransferFieldValue failed Unsupported field type".
IM-46567	OLH Default values disagree with Compute Affine Coefficients operator	1.Launch ERDAS IMAGINE 2018 Update 2 2.Launch Spatial Model Editor from File > New 3.Drag Compute Affine Coefficients operator to Spatial Model Editor 4.Observe default value set for Scale X ,Scale Y ports are 0 but OLH says default values are 1
IM-46565	OLH Default values disagree with APM Parameters operator	1.Launch ERDAS IMAGINE 2018 Update 2 2.Launch Spatial Model Editor from File > New 3.Drag APM Parameters operator to Spatial Model Editor 4.Observe default value set for PointsPerImage port is 25 but OLH says default value is 9
IM-46762	Some LAS inputs cause the Classify Ground Operator to crash ERDAS	Classify Ground operator causes ERDAS IMAGINE to crash with some point cloud input files. The cause of the problem has been identified with using point cloud files small enough not to need tiling.

	IMAGINE	After a crash you may see a session log error that looks like: 14/11/18 09:22:16 SessionMgr(4972): Executing spatial model: //cheryltest/sfdc/00036404_cloud_crash/classifyground/groundpoints.gmdx 14/11/18 09:25:45 SessionMgr(4972): external process exited with status -1073741819.
IM-46705	Spatial Model failed in Add Attribute By Order	Customer submitted a model where errors are reported at the Add Attribute By Order operator. Tests indicate the source of the errors may be coming from how the Filter By Geometries Operator is sending the temporary output to the next operator. 31/10/18 13:47:05 SessionMgr(3336): ERROR: #2348 from HexGeo::SpatialModeler::Operator::InternalApply 31/10/18 13:47:05 SessionMgr(3336): ERROR: HexGeo::SpatialModeler::Operator::SetErrorMessage failed 31/10/18 13:47:05 SessionMgr(3336): ERROR: #1985 from HexGeo::SpatialModeler::Operator::SetErrorMessage 31/10/18 13:47:05 SessionMgr(3336): ERROR: Spatial Model failed in Add Attribute By Order. The error was "Table count 209 does not match FeaturesIn count 14.". 31/10/18 13:47:06 SessionMgr(3336): Table count 209 does not match FeaturesIn count 46.
IM-48093	Add Attributes by Location does not accept just DN values	Add Attributes by Location seems to rely on there being an attribute table present on the raster stream. Whereas, frequently there will not be if the raster stream has been generated as part of the model. Open specific Spatial Model in a Spatial Model Editor Click Run. Note that the second Add Attributes by Location fails with a message "can't find attribute table" The only difference between the two Add Attributes by Location operators is that in the second one, the input raster stream has been multiplied by 2, thereby invalidating its attribute tables (but still having DN values). If instead you attach the output of Attach Attributes to the Related Data port of Add Attributes by Location 2, it runs successfully. Help states that DN values should be supported. It needs to be.
IM-48392	Add Attributes By Location operator fails with float values	Add Attributes By Location operator fails when the input raster is of float data type. 9/04/19 17:46:18 SessionMgr(23780): ERROR: #1985 from HexGeo::SpatialModeler::Operator::SetErrorMessage 09/04/19 17:46:18 SessionMgr(23780): ERROR: Spatial Model failed in Add Attributes By Location. The error was "HexGeo::SpatialModeler::Typedefs<class HexGeo::SpatialModeler::Data>::CastRef failed 09/04/19 17:46:18 Unable to cast a class HexGeo::SpatialModeler::Data to a struct HexGeo::SpatialModeler::DoubleData".
IM-18871	ERDAS IMAGINE crashes while saving read-only Spatial Model	Open a read-only Spatial Model file Add a new operator to the Spatial Model Click on the Close button of Spatial Model Editor Click Yes button of 'Verify Save on Close' Dialog Observe that ERDAS IMAGINE crashes
IM-46622	ERDAS IMAGINE crashes with ICA operator if Count exceeds number of bands	1.Launch ERDAS IMAGINE 2018, launch Spatial Model Editor 2.Connect a Model as Raster Input > ICA 3.Provide inputs * Raster Input : sub4road1.img (a 3 band image) from examples > Objective * Count : 16 * Sort Method: ICASORT_SKEWNESS 4.Click Run to execute model , observe ERDAS IMAGINE crashes.

IM-46536	ERDAS IMAGINE crashes while creating Geometry using Create Bounding Box operator	1.Launch ERDAS IMAGINE 2018 Update 2 2.Launch Spatial Model Editor and open specific Spatial 3.Click on preview and observe ERDAS IMAGINE crashes.
IM-34996	Convert to Features output does not carry the attributes of the input if "IsClumped" option is OFF	ERDAS IMAGINE 2016 Update 1 - Give Lnsoils.img from the example data as an input to *Convert to Features* operator and generate an output using the default options. - Open the output shapefile in the viewer and check the Attribute table. Notice that the attributes from the input thematic image are missing. Repeat the same with the "IsClumped" option ON and notice that the attributes are carried to the output.
IM-49241	Add Attributes By Location takes wrong values if no related data found	If the operator Add Attributes By Location cannot find a suitable object to fill attributes, the attributes of the object with previous Primary Key value are taken to fill the attribute table. This is wrong. The entry should stay empty instead.
IM-49459	Update Statistics operator not properly setting skip factors, exclude values, etc.	Update Statistics operator is not writing the correct Statistics Parameters and Histogram Parameters (skip factors, exclude values, bin function, and AOI) to the image layers. It's writing out the default values, not what was actually used for the stats.
IM-49456	Add Attributes by Location operator causes ERDAS IMAGINE to exit	ERDAS IMAGINE 2018 Update 2 See specific Spatial Model Open the model in Spatial Model Editor Double-click the <StringList> port on the Add Attributes by Location operator. This should open a dialog enabling you to select attribute names ERDAS IMAGINE exits.
IM-48930	Least Cost Path model hangs	See the data and model available here: https://community.hexagongeospatial.com/t5/Spatial-Modeler-Tutorials/Calculating-a-Least-Cost-Path-using-a-DEM/ta-p/6115 In ERDAS IMAGINE 2016 v16.1 you can open this model in the Spatial Model Editor and run it to completion in about 4 minutes. If you try to do the same in ERDAS IMAGINE 2018 it just hangs in the Least Cost Path operator.
IM-46540	Density Interpolation operator throwing error in combination with Create Center Point operator	The problem is with the way the Density Interpolation operator interprets the primary geometry field of the input features. Output features from the Create Centerpoint operator contain 2 geometry fields, the original input areas and the newly created centerpoints. The operator also correctly sets the primary geometry to GC_Centerpoint, which can be proven by passing features into the Features Information operator and observing the PrimaryGeometryFieldName port. When passing features directly from Create Centerpoint to Density Interpolation, the Density Interpolation operator incorrectly attempts to use the original area geometry field "Geometry" presumably because it appears first in the list.
IM-44641	Rapid Atmospheric Correction tool does not pass calibration file to Spatial Model	The calibration file is not getting passed from the Rapid Atmospheric Correction tool to the Rapid Atmospheric operator in the Spatial Model. When you try to run the tool, the process fails. Session log reports the error "No input file available". To work around this problem, click the View button in the Rapid Atmospheric Correction tool and it opens the spatial model. Double-click on the CalibrationFilename input port for the Rapid Atmospheric operator and select the calibration file, then run the spatial model.
IM-47466	Performing a sort on a Features Table column in Connection Manager dialog crashes Spatial	A crash of the Spatial Model Editor application occurs when the Connections Manager dialog is used to make a proxy file connection (for Oracle, PostGIS, or SQL Server) if the Feature Tables list is then sorted (by selecting the 'Name' column and choosing the 'Sort A..Z' or 'Sort Z..A' option).

	Model Editor	
IM-46722	Previewing a raster with 0 rows and 0 columns crashes ERDAS IMAGINE	After analyzing why a customer's Spatial Model was crashing, in the end tracked it down to an error defining the output pixel dimensions that resulted in an output raster with no rows or columns. Previewing this crashes ERDAS IMAGINE.
IM-35174	Raster (Color) Attribute Output wipes Color Table with u8 output	See model attached. You can use Bands 4 and 3 from a Landsat dataset such as this one: ¥¥alpha¥ARRAY5¥Cherokee County Data¥Landsat¥New Landsat Data¥Landsat 5 May1997 Open the model in Spatial Model Editor. Click Run. Leave Stretch flag set to False (so you'll get floating point NDVI results), fill in the input images, click OK. Open the resulting image file as PseudoColor. Results look good (dark to light green color ramp is applied – let's ignore the fact that it seems to have created a valid color for NoData). Click Run again and give a different output file name. Change Stretch flag to True (to give u8 output). Open the resulting image file as PseudoColor. The image is displayed all black because the colors applied to each class are all black.
IM-35173	Attach (Color) Attributes does not work with Floating Point output	Open a specific Spatial Model in Spatial Model Editor. Click Preview. Leave Stretch flag set to False (so you'll get floating point NDVI results), fill in the input images, click OK. Results look good (dark to light green color ramp is applied). Click Run. Open the resulting image file as PseudoColor. No color ramp was saved to the output file (so it does not look the same as the Preview)
IM-47841	RGBtoIHS causes stats problem when data is out of specified range	A Spatial Model was build which performs a RGB to IHS on an input 8-bit RGB image. However, the actual data range of the input image exceeds the specified Max values on the RGB to IHS operator, causing problems in a subsequent Statistics operator.
IM-47534	Preview of DirectLookup not behaving well when Table is a color table	* Build a Model like this with a Thematic input image:  * Click Preview * On the Multispectral tab, try changing the band combination. Notice that nothing happens. * Select the Panchromatic Image Chain. You'll get red Xs.
IM-46904	NDVI model from the Ribbon GUI ignores the 'stretch to Unsigned 8 bit' option	Running NDVI from the ribbon gui does not produce a properly rescaled image when using 'Stretch to Unsigned 8 bit'. The output value range is 0 – 1. After selecting the *Stretch to Unsigned 8 bit* option from the I/O options tab, the default spatial model opened from the NDVI dialogue's View button has the StretchFlag value in the Properties dialogue set to Integer (0) and produces the same unexpected result. If you change the StretchFlag value to Integer (1), the model rescales the output image to a 8 bit value range that appears to be correct.

IM-48405	Remove Item fails when DataIn is a Table	Remove Item operator says that it supports "Dictionary, List (of Data), and Data" for DataIn. There's a TableToList conversion, so you'd think that you could remove items from a Table. But it fails, even though the connection is not shown in red.
IM-48058	Example 2 missing from Spatial Modeler Guide	Apparently this got lost. All the current Guide says is "Example 2: Load/Save/Edit a Spatial Model".
IM-49513	Feeding an AOI to Features Input causes ERDAS IMAGINE to exit	ERDAS IMAGINE 2018 Update 2 Start Spatial Model Editor Add a Features Input operator Double-click the input port In the File Chooser select the All Files (*.*) filter option Select an .AOI file and OK the file Chooser Click Run ERDAS IMAGINE exits.
IM-49575	ERDAS IMAGINE crashes with model containing Update Attribute operator	1.Launch ERDAS IMAGINE 2.Launch Spatial Model Editor and Load the model and click on Preview.  3.Observe ERDAS IMAGINE crashes.
IM-47233	Set Primary Geometry operator UI does not present all available geometry fields with IFC format	Attempted to use Set Primary Geometry to select a geometry field in a model but was unable to select the field via the dialog, entering it manually worked fine. The model uses Generate Functional Attributes to create a new geometry field. This new field becomes primary after GFA executes. Wanted to use Set Primary Geometry to set the original geometry field back to primary. However, it was not in the drop down list on the UI.
IM-49844	Convert to Features operator fails in execution	 Click Preview Model fails in the Convert to Features operator
IM-40485	Alert messages in Python while running Spatial Model containing the Generate Surface operator	Customer reported that when running a python script that is using a Spatial Model containing the Generate Surface operator, they get alert messages about starting processing pyramid levels. The user had to manually click OK in order the Python script to process to the next pyramid levels. This continues until all the pyramids levels are processed.
IM-46859	Previewing a Model containing Rename Attributes has scale-dependent problems	Open specific Spatial Model in the Spatial Model Editor. Click Preview The model successfully previews the buffer "donuts" in a View Now zoom in in the Preview. At some stage the geometries stop drawing. Zoom back out and they re-appear.
IM-47572	Operators do not warn if an inappropriate object type is connected to them	The following two operators do not warn (red color connection) if an inappropriate object type is connected to them. # Initialize Deep Intellect – AddLayer1 port is expecting a Dictionary object type. But it does not warn if any other object type is connected to it. # Detect Objects Using Deep Learning – MachineIntellect port expects a

		MachineIntellect object type. But it does not warn if any other object type is connected to it.
IM-46526	Preview results from Convert to Surface operator are incorrect	ERDAS IMAGINE 2018 Update 2 A Spatial Model was built which takes vectors with a height attribute and runs them through Convert to Surface and sends to a Preview. Click Preview At first the results may appear correct. But if you zoom in to the area that has been interpolated, the results chop and change - sometimes large gaps appear, sometimes almost all the interpolated values disappear, etc. Also, when you open the Inquire Cursor, it reports NoData for the interpolated areas. However, when you click Run and output a file of the interpolation, the results look fine.
IM-49617	Error opening image with Elevation Info in Image Metadata in Spatial Modeler SDK	In an installation of Spatial Modeler SDK: # Launch Spatial Model Editor # Launch Image Metadata # Open Indem.img in the Image Metadata tool Error 10/07/19 12:34:26 imageinfo(21724): Error opening file [recalculateelevation.eml] for input! 10/07/19 12:34:28 SessionMgr(11492): ERROR: #8226 from eeml_Parse 10/07/19 12:34:28 SessionMgr(11492): ERROR: Problem in EML macrofile recalculateelevation.eml 10/07/19 12:34:28 10/07/19 12:34:28 SessionMgr(11492): ERROR: #1156 from elex_Parse 10/07/19 12:34:28 SessionMgr(11492): ERROR: Input is empty Error processing unknown file at or near "Unexpected End" 10/07/19 12:34:28 SessionMgr(11492): ERROR: #1 from eeml_Parse 10/07/19 12:34:28 SessionMgr(11492): ERROR: Input is empty
IM-49558	Point Cloud > Convert To Surface output is too small	Both 32- and 64-bit versions of the operator are generating output files that are much too small, only several pixels large.
IM-43943	Spatial Model Editor "hangs"	ERDAS IMAGINE 2018 Update 1: Open specific Spatial Model in Spatial Model Editor. Scroll over until you can see the Zonal Summary Max operator. Right click on it and select Run Just This. Once it has completed left-click on the Summary operator. The Spatial Model Editor may immediately go "busy". If not, try to pan the model using the middle mouse button. At some stage the Editor decides to go "busy" for a minute or so. Eventually you might get control back, but left-clicking on the Zonal Summary Max operator sets it off again and you have to wait, again.
IM-34174	Spatial Model operator Bitwise Not is giving output Binary(1) even if the input is Binary(1)	Customer reported that when using the Bitwise operator Not, if false is input, it returns a true, if true is input, it returns a true. Steps to reproduce: 1. Create new spatial model, drag Bitwise Not in 2. Use true as input, change to Binary(1) 3. Run model, output is Binary(1) However, using false, the result is the same.
IM-20602	Raster Input operator is failing while displaying VMCX file pointing to PNG in Spatial Model Editor	Display a VMCX file pointing to PNG using a Spatial Model (Port Input > Raster Input > Preview). Randomly Raster Input Operator is failing (cross mark).

IMAGINE Terrain Editor

Issue ID	Summary – IMAGINE Terrain Editor	Description / How to Reproduce
IM-42325	Recalculate Elevation for Images no longer offers millimeters as an elevation unit	Users need the ability to change elevation height units to millimeters. This cannot be done with the Recalculate Elevation for Images tool found under the Terrain tab (Manage group) or within the Image Metadata tool (or the Image Commands tool).
IM-41348	Geomorphic Edits not saved	In some cases when applying geomorphic edits, they are not being saved. This seems to happen randomly but more often when one closes the Terrain Editor dialog and clicking the save button from the popup dialog when prompted to save the changes.
IM-31142	Move AOI Home icon is changed in Terrain Editor	Launch ERDAS IMAGINE. Load a block file having DEM. Launch Terrain Editor. Go to Terrain Files and Display tab > Area of Interest section > Navigation > Center icon i.e 'Move AOI Home' icon is changed from house symbol to dot.
IM-46872	Unknown characters shown on Button Mapping Window Title	1.Launch ERDAS IMAGINE 2018 2.Load any photogrammetric project 3.Launch Terrain Editor window. 4.Launch Button Mappings from Edit > Devices > System Mouse 5.Observe that unknown characters shown on Button Mapping Window Title.
IM-46903	Terrain Editor produces errors when editing geographic LTFX DTMs	When points of a geographic LTFX DTM are edited with the Terrain Editor in a geographic projection blockfile, the changes are very often not saved. The effect could not be observed using UTM LTFX DTMs generated within a UTM blockfile.
IM-47462	Terrain Prep Tool cannot merge two overlapping LAS files using both Thin and Filter preprocessing options	If you try to create a DEM from two overlapping LAS files using either the Surface process (Rasterization) or the Merge process, it fails at the merge step if both the Thin and Filter preprocessing options are enabled. If you only use one of the preprocess settings (Thin or Filter) it works as it should.

IMAGINE Expansion Pack – 3D

Issue ID	Summary – IMAGINE Expansion Pack 3D	Description / How to Reproduce
IM-48196	ERDAS IMAGINE crashes while selecting Digitize Flight Path with Tablet in 3D view	1.Launch ERDAS IMAGINE (64-bit) 2.Close 2D view and create new 3D View 3.Select Scene tab and launch Flight Path Editor from Navigation group 4.Select New Configuration from Flight Path Editor > Utility > Digitize Flight Path With Tablet 5.Observe ERDAS IMAGINE crashes.
IM-45759	Unable to Start Movie Recording of type Microsoft AVI in 3D view, as file was defaulting to a .mpg extension	1.Launch ERDAS IMAGINE 2018 Update 2 2.Close 2D View and launch 3D View from Add views > Create New 3D View 3.Load data 4.Click on Start button from Scene tab > Recording 5.Provide the output movie file as test.avi. 6.Click OK and observe a dialog opens. Unable to start Movie recording. This is not the case with File of type IMAGINE Movie (*.mov)

IMAGINE Expansion Pack – AutoSync

Issue ID	Summary – IMAGINE Expansion Pack AutoSync	Description / How to Reproduce
IM-47057	AutoSync not displaying coordinates legibly	Start AutoSync workstation and load a specific project. Points have already been generated. Try to read the coordinates - you cannot because the significant digits have been displaced off the left side of the columns.
IM-47056	AutoSync not recognising RPC model as being valid	See the Community thread here: http://community.hexagongeospatial.com/t5/Spatial-Modeler/autosync-automatically/m-p/29178/highlight/false#M518 Start AutoSync workstation and load a specific project. Points have already been generated so click the Sigma button to try to solve the RPC models the input images are calibrated with. Error Invalid output geometric model
IM-45119	AutoSync workstation crashes while creating GCP with single input image	1.Launch ERDAS IMAGINE and launch Autosync Workstation 2.Create a Project as Georeference workflow 3.Provide input image as residential.image from Examples > Objective 4.Click on Create GCP button and Click on input image and observe AutoSync crashes.
IM-46612	AutoSync CellArray displays values with incorrect formatting	ERDAS IMAGINE2018: AutoSync CellArray format displays coordinate values in the cell array that are not right justified and contain an excessive number of decimal places. Autosync 2016 displays the cell array values as expected. Coordinate values are represented 8 decimal places. Residual values are represented with 16 decimal places. Compare with Autosync 2016. The numerical values are right-centered with the coordinate values represented with 3 decimal places and the Residual values represented with 6 decimal places.
IM-47855	Run APM does not do anything in AutoSync 2018 with data in custom datum and projection	Customer is using a custom datum and projection in Autosync for georeferencing ZY3 sensor data. According to the customer in ERDAS IMAGINE 2018 with Update 1 or 2, Autosync is unable to start the “Run APM” . The session log gives the following error message: 28/02/19 16:09:47 SessionMgr(13104): WARNING! The two images do not overlap with each other, output may not be generated. The problem does not occur if ERDAS IMAGINE 2018 without Updates is used.

IMAGINE Expansion Pack – NITF

Issue ID	Summary – IMAGINE Expansion Pack NITF	Description / How to Reproduce
IM-45772	SNIP NITF: 1.5 minutes to display image	ERDAS IMAGINE 2018 Update 2 Start ERDAS IMAGINE Click the File icon on the Quick Access Toolbar. Select a SNIP RIP .ntf file Go to the Sub-images tab. Click on the Multi checkbox. On my computer it took 2 minutes before I regained control of the File Chooser. Once you can, click OK to display the image.

		On my computer it took 1.5 minutes until the image displayed (at 1:1)
IM-45773	SNIP NITF: 26s to change a band	ERDAS IMAGINE 2018 Update 2 Start ERDAS IMAGINE Click the File icon on the Quick Access Toolbar. Select the SNIP RIP .ntf file Go to the Sub-images tab. Click on the Multi checkbox. Once the image is displayed go to the Multispectral tab and select a different band for the Green color gun. On my system it took 26s for the new band to display.
IM-45771	SNIP NITF: 2 minutes for File Chooser Sub-image tab to respond	ERDAS IMAGINE 2018 Update 2 Start ERDAS IMAGINE Click the File icon on the Quick Access Toolbar. Select the SNIP RIP.ntf file Go to the Sub-images tab. Click on the Multi checkbox. On my computer it took 2 minutes before I regained control of the File Chooser.
IM-45777	SNIP NITF: 5 minutes to open ImageInfo	ERDAS IMAGINE 2018 Update 2 Start ERDAS IMAGINE Click the File icon on the Quick Access Toolbar. Select the SNIP RIP.ntf file Go to the Sub-images tab. Click on the Multi checkbox. On my computer it took 2 minutes before I regained control of the File Chooser. Once you can, click OK to display the image. On my computer it took 1.5 minutes until the image displayed (at 1:1) Once the image is displayed click the ImageInfo button. On my system it took 5 minutes and 30s for ImageInfo to come up and populate with information (for one band). Each time you change band it takes another 5 minutes.
IM-49812	Chipping errors likely caused by delayed TRE/DES parsing	In ERDAS IMAGINE 2018 Update 2 it was discovered that NITF chipping of various classified data was erroring out. This same behavior did not occur with earlier versions. It also did not occur when the DPM was uninstalled. [~bshelley] traced this down in the debugger to the presence of TRE/DES in the data that had delayed parsing implemented in the DPM for Update.

ERDAS IMAGINE Installation

Issue ID	**Summary – ERDAS IMAGINE Installation**	**Description / How to Reproduce**
IM-48920	ArcGIS Geodatabase Compatibility Table in OLH should be updated with 10.6 and 10.6.1	ArcGIS Geodatabase Compatibility Table in OLH should be updated with 10.6 and 10.6.1 (supported versions) The table shows support till 10.5.1
IM-46782	Borrowing XML does not include IMAGINE SAR Feature	The XML file that controls the dependencies for Borrowing does not seem to include the IMAGINE SAR Feature module: "C:¥ProgramData¥Intergraph¥Licensing¥Borrowing¥IMAGINE2018.xml"

IM-43159	Undesirable auto CSM configuration behavior	Observed in ERDAS IMAGINE 2018. The utility configure_all.exe now also automatically configures several CSMs delivered with the software (for 32 bit SICD,SIDD,VM sensor models, for 64 bit SICD,SIDD sensor models). This behavior is undesirable for the following reasons: (1) If CSMs were already configured by the user, most likely they are in a different location than the "Imagine native" CSMs. When both are in place, get a Warning window complaining that the "Data directory for CSMs" cannot be set to two locations. (2) ERDAS IMAGINE 2018 displays a Message window recommending that 32 and 64 bit CSM configurations be the same. But this auto CSM configuration does not do this (the VM sensor model is only configured in 32 bit). (3) If the user had already configured SICD and SIDD sensor models, their configuration is overwritten by the "native CSMs".
IM-43327	Unnecessary install directories	For some reason there are several new directories included with ERDAS IMAGINE 2018 that weren't there before (and aren't necessary for the software to run)
IM-48028	The following files don't have a valid signature	The following files that don't have a valid signature, * hdf.dll * mfhdf.dll
IM-37464	SIX CSM is not automatically configured on startup	SIX CSM is not automatically configured on installation.
IM-49536	Setup-Manager GUI is messed up on my Virtual Box with German OS	With eRDAS IMAIGNE 2018 onwards the Setup Manager (installer) the GUI is messed up on machine with a German OS. It seems to have some (unexpected, undesired) links to the right of the tree view where you select the product that are not there on a system with English OS.

ERDAS ER Mapper

Issue ID	**Summary –ERDAS ER Mapper**	**Description / How to Reproduce**
IM-40262	When Big ERS files are compressed in ER Mapper into ECW v3, it outputs into a completely different and bad looking image	Problem replicated with big ERS files, including that of the customer. ER Mapper is actually compressing the big ERS file with an extremely high compression ratio. Actual Compression ratio more than 500, even if the target compression ratio was just 2 or 3. When compressing the ERS file into JPEG 2000 format, the problem does not happen. Also, when using ERDAS IMAGINE ECW Exporter, that problem does not happen for ECW v3. Therefore, the problem seems to be only in ER Mapper ECWv3 exporter.
IM-45954	Execution of creating rotated tiff file is terminated	ERDAS ER Mapper 2018 Go to Toolbars > Common Functions > Ortho and Geocoding Wizard. Input file: -Copy file to a new location:...¥examples¥ermapper¥applications¥airphoto¥1_geocoding¥ San_Diego_Airphoto_34_rectified.ers and San_Diego_Airphoto_34_rectified. Geocoding type: Rotation Go to Rotation Setup tab, Rotation angle: 45 Go to Rectify Tab specify output file and write to tif. and select Save file and Start Rectification. Observe process is terminated, whereas execution is successful for .ers, ECW
IM-48647	Regions to Vectors and Vectors to Regions Conversion commands	1) Launch ER Mapper > Toolbars > Classification Toolbar 2) Launch Regions to Vector conversion / Vector to Regions conversion command

	Help are pointing to Raster to Vector conversion Help page	3) Click on Help button Observe that it navigates to Raster to Vector conversion help page

PRO600

Issue ID	Summary – PRO600	Description / How to Reproduce
IM-46078	CALSPOT not working on PRO600 2018 Installation	The collect calspot command does not seem to work, and the PRO600 Library settings seem to match the help file for calspot.
IM-46058	PRO600 viewplex fails to load JPG images	* Open a specific blockfile and attach the JPG images associated with it. * Launch Terrain Editor and load the image pair in it. * Notice that the image pair is displayed fine. * Close Terrain Editor and launch PRO600. * After the viewplex is launched, try to load the image pair in the viewplex. Notice that an error pops up and the image pair fails to load. The same images work fine if converted to img. JPG images were able to load in the PRO600 viewplex fine with ERDAS IMAGINE 2013.
IM-45842	PRODTM hangs for a very long time while trying to measure masspoint manually	In PRO600, while trying to measure the points (mass points) in a grid in PRODTM, using measure tool, PRO600 / PRODTM hangs for a very long time. While working with the customer data, discovered: If import more than 20,000 points (grid 20X20 meter) from the DEM file (IMG format), the PRO600 hangs. For the same data, created a less dense grid (100X100 meter) where less than 5000 points are imported, now the PRO600 / PRODTM works fine.

Stereo Analyst for ERDAS IMAGINE

Issue ID	Summary – Stereo Analyst	Description / How to Reproduce
Various	Various issues for Stereo Analyst for ERDAS IMAGINE	• Numerous issues have been addressed for the Stereo Analyst for ERDAS IMAGINE product (part of the IMAGINE Expansion Pack module) including the following problems/fixes: • Added a new escape event so that parallel lines get stopped (when you press escape) • Added escape to save/close buttons (This gets rid of the empty place holders - infinity points) • Add a new check for parts (faces) that are elements attached to other elements, check if these are empty • Stops crash when using parallel line then quitting. • Clicking quickly on the start button should not cause two errors to pop-up • After save as, if failure, the user can repair errors • Spelling in warning dialogue for large memory use fixed. • Add Element should no longer create zero points • Changed precision in vertices editor (to 6 decimal points) • Export features fixed • Added extra verification checks on save to make sure points have at least 1 point, lines have at least 2 and polygons have 3 or more points. • Restart application when closing all layers to ensure all memory is reset. • Label Added for version number • Set read only flag when reading TIL files • When escaping the second point of a parallel line, remove all vestiges of the

		line and set the measured width to 0 • After escaping or changing feature after using parallel tool, remove the entry in the table • If a user deletes the same face (attached element) twice, the software would crash • Fixed drop to ground (check for NULL pointer failing) • Check parts (tiles) of the file are not only there but can be opened • Auto-clean for projects • Remove "Infinity Point" generation when user selects to add element, but then does NOT add an element - i.e. escapes or chooses another feature • Added new controls for the feature attributes (add standard attributes if preference "Add standard attributes if missing" is turned on) • If attributes are added by the system, the user is informed • Cleaned up feature import dialogue • Cut is properly added to the undo stack • Moved the check for existing to the first thing done (can't check earlier) • Reversed the order of deletion so that multiple errors within the same feature can be autocleaned • Always clean empty faces (elements) that cannot be deleted from the interface • Autoclean added better messages for when an error occurs on save • Autoclean working consistently • Extra parallel line no longer created when 3D snap is on and parallel lines are being drawn. 3D snap is tested on the first point (not the measured point) if no snap, then behave like normal • Redo multiple deletes, no longer crashes • Added flags to allow reads while reading (image format inside another format) • Changing a vertex enables the save button • Enabled delete from table (Right click in ID column delete is enabled) • Header drawn correctly when no shapefile available • Modified error message for missing vertices • Added check for Duplicate Attributes (It was just adding 1 to the last in the list) • Select does not cancel current edits • Spelling mistake • Added check for calculated box. If out of bounds don't use • Fix Undo if no undo to undo • Removed Error message when final shape check is done (and fails), only the warning message is now returned, telling the user how to correct. • Fix vertex removal issue • Fix selection of faces • Fix undo selected face • Notify user of deletion to the face / element (automated) • Update error messages when checking for errors in digitizing • Update (and create) function to remove orphan parts of elements • Fix issue when the first part of a segment is removed • Slight modification to write/check function so that the check is completed on all appropriate layers before any writing • Cone fix • New preference for Minimum number of vertices (PolyLines and Polygon) • Implementation of delay (configurable) before saving

		• Secondary save on save error. (If an error occur when a tempv file is encountered, attempt the save again) • Crash on Save fixed (if tempv file error created and user continues) • Surface layer feature hang error (again when tempv file has been encountered) • Bug when selecting a feature, then dropping the feature to ground and splitting an element group and adding a part/face all at the same time. • Parrallel Line fix • New Preference to save all layers or just changed layers • Only save feature layers that have changed • If a rename fails (tempv, temp) when saving shapefile retry up to 3 times with a delay (300ms) between

Contact Us

https://go.hexagongeospatial.com/contact-us-today

About Hexagon

Hexagon is a global leader in sensor, software and autonomous solutions. We are putting data to work to boost efficiency, productivity, and quality across industrial, manufacturing, infrastructure, safety, and mobility applications.
Our technologies are shaping urban and production ecosystems to become increasingly connected and autonomous — ensuring a scalable, sustainable future.
Hexagon's Geospatial division creates solutions that deliver a 5D smart digital reality with insight into what was, what is, what could be, what should be, and ultimately, what will be.
Hexagon (Nasdaq Stockholm: HEXA B) has approximately 20,000 employees in 50 countries and net sales of approximately 4.3bn USD. Learn more at hexagon.com and follow us @HexagonAB.

Copyright

Product Documentation Terms of Use

PLEASE READ THESE TERMS CAREFULLY BEFORE USING HEXAGON GEOSPATIAL'S DOCUMENTATION ("DOCUMENT"). USE OF THIS DOCUMENT INDICATES ACCEPTANCE OF THIS AGREEMENT WITHOUT MODIFICATION. IF YOU DO NOT AGREE TO THE TERMS HEREOF ("TERMS"), DO NOT USE THIS DOCUMENT.

Use Of This Document

All materials in this Document are copyrighted and any unauthorized use may violate worldwide copyright, trademark, and other laws. Subject to the terms of this Agreement, Hexagon Geospatial (a Division of Intergraph Corporation) and Intergraph's subsidiaries ("Intergraph") hereby authorize you to reproduce this Document solely for your personal, non-commercial use. In consideration of this authorization, you agree to retain all copyright and other proprietary notices contained therein. You may not modify the Materials in any way or reproduce or publicly display, perform, or distribute or otherwise use them for any public or commercial purpose, except as specifically authorized in a separate agreement with Hexagon Geospatial. The foregoing authorization specifically excludes content or material bearing a copyright notice or attribution of rights of a third party. Except as expressly provided above, nothing contained herein shall be construed as conferring by implication, estoppel or otherwise any license or right under any copyright, patent or trademark of Hexagon Geospatial or Intergraph or any third party.
If you breach any of these Terms, your authorization to use this Document automatically terminates. Upon termination, you will immediately destroy any downloaded or printed Materials in your possession or control.

Disclaimers

ALL MATERIALS SUPPLIED HEREUNDER ARE PROVIDED "AS IS", WITHOUT WARRANTY OF ANY

KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT. Hexagon Geospatial does not warrant that the content of this Document will be error-free, that defects will be corrected, or that any Hexagon Geospatial Website or the services that make Materials available are free of viruses or other harmful components.
Hexagon Geospatial does not warrant the accuracy and completeness of this Document. Hexagon Geospatial may make changes to this Document at any time without notice.

Limitation Of Liability

IN NO EVENT SHALL HEXAGON GEOSPATIAL BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES, OR DAMAGES FOR LOSS OF PROFITS, REVENUE, DATA OR USE, INCURRED BY YOU OR ANY THIRD PARTY, WHETHER IN AN ACTION IN CONTRACT OR TORT, ARISING FROM YOUR ACCESS TO, OR USE OF, THIS DOCUMENT.

Indemnification

You agree to defend, indemnify, and hold harmless Hexagon Geospatial, its officers, directors, employees, and agents from and against any and all claims, liabilities, damages, losses or expense, including reasonable attorneys' fees and costs, arising out of or in any way connected with your access to or use of this Document.

Use Of Software

Use of software described in this Document is subject to the terms of the end user license agreement that accompanies the software, if any. You may not download or install any software that is accompanied by or includes an end user license agreement unless you have read and accepted the terms of such license agreement. Any such software is the copyrighted work of Hexagon Geospatial, Intergraph or its licensors. Portions of the user interface copyright 2012- Telerik AD.

Links To Third Party Websites

This Document may provide links to third party websites for your convenience and information. Third party websites will be governed by their own terms and conditions. Hexagon Geospatial does not endorse companies or products to which it links.
Third party websites are owned and operated by independent parties over which Hexagon Geospatial has no control. Hexagon Geospatial shall not have any liability resulting from your use of the third party website. Any link you make to or from the third party website will be at your own risk and any information you share with the third party website will be subject to the terms of the third party website, including those relating to confidentiality, data privacy, and security.

Trademarks

The trademarks, logos and service marks ("Marks") displayed in this Document are the property of Hexagon Geospatial, Intergraph or other third parties. Users are not permitted to use Marks without the prior written consent of Hexagon Geospatial, Intergraph or the third party that owns the Mark. "Intergraph" is a registered trademark of Intergraph Corporation in the United States and in other countries. Other brands and product names are trademarks of their respective owners.
Find additional trademark information https://www.hexagongeospatial.com/legal/trademarks.

Procedure For Making Claims Of Copyright Infringement

Notifications of claimed copyright infringement should be sent to Hexagon Geospatial by mail at the following address: Intergraph Corporation, Attn: Intergraph Legal Department, P.O. Box 240000, Huntsville, Alabama 35824.

US Government Restricted Right

Materials are provided with "RESTRICTED RIGHTS." Use, duplication, or disclosure of Materials by the U.S. Government is subject to restrictions as set forth in FAR 52.227-14 and DFARS 252.227-7013 et seq. or successor provisions thereto. Use of Materials by the Government constitutes acknowledgment of Hexagon Geospatial or Intergraph's proprietary rights therein.

International Use

You may not use or export Materials in violation of U.S. export laws and regulations. Hexagon Geospatial makes no representation that Materials are appropriate or available for use in every country, and access to them from territories where their content is illegal is prohibited.
Hexagon Geospatial provides access to Hexagon Geospatial international data and, therefore, may contain references or cross references to Hexagon Geospatial products, programs and services that are not announced in your country. These references do not imply that Hexagon Geospatial intends to announce such products, programs or services in your country.
The Materials are subject to U.S. export control and economic sanctions laws and regulations and you agree to comply strictly with all such laws and regulations. In addition, you represent and warrant that you are not a national of, or otherwise located within, a country subject to U.S. economic sanctions (including without limitation Iran, Syria, Sudan, Cuba, and North Korea) and that you are not otherwise prohibited from receiving or accessing the Materials under U.S. export control and economic sanctions laws and regulations. Hexagon Geospatial makes no representation that the Materials are appropriate or available for use in every country, and access to them from territories where their content is illegal is prohibited. All rights to use the Materials are granted on condition that such rights are forfeited if you fail to comply with the terms of this agreement.

Revisions

Hexagon Geospatial reserves the right to revise these Terms at any time. You are responsible for regularly reviewing these Terms. Your continued use of this Document after the effective date of such changes constitutes your acceptance of and agreement to such changes.

Applicable Law

This Document is created and controlled by Hexagon Geospatial in the State of Alabama. As such, the laws of the State of Alabama will govern these Terms, without giving effect to any principles of conflicts of law. You hereby irrevocably and unconditionally consent to submit to the exclusive jurisdiction of the United States District Court for the Northern District of Alabama, Northeastern Division, or the Circuit Court for Madison County, Alabama for any litigation arising out of or relating to use of this Document (and agree not to commence any litigation relating thereto except in such courts), waive any objection to the laying of venue of any such litigation in such Courts and agree not to plead or claim in any such Courts that such litigation brought therein has been brought in an inconvenient forum. Some jurisdictions do not allow the exclusions or limitations set forth in these Terms. Such exclusions or limitations shall apply in all jurisdictions to the maximum extent allowed by applicable law.

Questions

Contact us with any questions regarding these Terms.