Following are some standards we recommend:

Always pretend HlyGrail (486c79477261696c) to the front of your IPF Hash.

To be backward compatible when HlyGrail is detected software must assume it is using the algorithm.

First, try to read the IPF as text if the document is presented. If it cannot read it, then the software should try to decrypt using the address before trying to read as text.

Older files created a text file of the data then took the hash of either the plain or encrypted text file as the IPF. All new IPFs use the encrypted JSON of the data for the IPF. The text files are representations of the data printed for humans to understand what is protected.

Check the HlyGrail keypair to determine the IPF file type. If it is a domain name or ID, the location will point to the bitcoin address holding the copyright domain name, ID, or slogan readable by everyone. Other types will determine how to handle the JSON IPF file.

HlyGrail Types

Types are unlimited so the reading software must know how to interpret the file based on the type. When using JSON, the software can look for keypairs it knows and ignore the rest. Other types such as ERC-721 can be included in our types. Usually, we use the General IPF at the end of these examples.

Independent IPF

Include the Address as a watermark or in the metadata of the media.

Preferably create and IPF to include the address, attributes, and ownership.

NOTE: When we create IPFs for you, we will include your personal license code.

Below are some examples of types. These include contact information and room for lots of media. In many cases people do not want contact information.

Domain Name or ID

```
{
"HlyGrail": "DomainName",
"addressIPF": "ADDRESS",
"owner": "OWNER",
"contact": {
```

```
"phone": "Your Phone Number",
"email": "Your Email",
"address": "NONE",
"other": "Whatever you want to put here."
},
"addressDomain": "Your domain address being protected",
"domainName": "Your domain name or ID being protected",
"extension": "ALL",
"license": "https://hlygrail.com"
}
```

Attribute IPF – Fully Modifiable and protected NFT. Below is an example.
You can add more Media to the array and more Assets to the array. The
number of files is not needed but helps program usage.

```
{
"HlyGrail": "attributeIPF",
"addressIPF": "ADDRESS",
"owner": "OWNER",
"title": "Icon and 3 d Character",
"description": "My fabulous Metaverse Character with green eyes.",
"numberFiles": 2,
"media": [{
"title": "Icon",
"description": "2 D image",
"fileLocation": "IPFS",
"fileHash": "CID",
"filetype": "jpg"
},
{
"title": "3 D Character",
"description": "3 D model",
"fileLocation": "https: //mywebsiteapi.com?3dcharacter",
"fileHash": "HlyGrailxxxxxxxxxxxxxxxxxxxxxxxxx",
"filetype": "obj"
}
],
"assets": [{
"title": "Health",
"description": "Character Health",
"health": 100
},
{
"title": "Weight",
"description": "Weight in pounds under Earth Gravity",
"weight": 450
}
],
```

```
"license": "https: //hlygrail.com"
}
```

Other standards can be included in the IPFS such as ERC-721.

```
{
"HlyGrail": "ERC-721",
"addressIPF": "ADDRESS",
"owner": "OWNER",
"title": "Asset Metadata",
"type": "object",
"properties": {
"name": {
"type": "string",
"description": "Identify the asset for this NFT"
},
"description": {
"type": "string",
"description": "Describes the asset for this NFT"
},
"image": {
"type": "string",
"description": "URI pointing to the resource with mimi type etc."
}
},
"license": "https: //hlygrail.com"
}
```

IPF Intellectual Property File V2 – This is the most often used for larger Intellectual Property such as patents requiring many documents of varied types, locations, security, etc. This can have any number of media, storage locations, and security.

```
{
"HlyGrail": "IPF2",
"addressIPF": "ADDRESS",
"owner": "OWNER",
"title": "Title of Patent (Library of Congress)",
"description": "This protects every document ever written",
"numberFiles": 2,
"media": [{
"title": "Icon",
"description": "Birthday Photo",
"fileName": "birthday2016",
"filetype": "jpg",
"fileLocation": "IPFS",
"fileHash": "CID",
"fileSize": "123,456 bytes",
```

"Encrypted": "AES256 assumed with addressIPF",
"hashType": "SHA256 assumed"
},
{
"title": "File2",
"description": "My wonderful song",
"fileName": "mysong",
"filetype": "mp3",
"fileLocation": "https: //myhomepage/mysong.mp3",
"fileHash": "CCF293B52C9E00A05ECD9D8BD9975C1DEB1E54A80C0263C1206E072BDBB314BB",
"fileSize": "7,123,456 bytes",
"Encrypted": "No",
"hashType": "NA"
}
],
"license": "https: //hlygrail.com"
}

T-Shirt or Slogan – Include the address, the front, and the back of the T-Shirt all in one picture. This makes it a ONE transaction IPF. This is not watermarked like a picture IPF because you want to SEE the address or your IPF Patent / Copyright Number.

{
"HlyGrail": "T-Shirt",
"addressIPF": "ADDRESS",
"owner": "OWNER",
"contact": {
"phone": "Your Phone Number",
"email": "Your Email",
"address": "Contact Address",
"other": "Whatever you want to put here like your website."
},
"title": "Hot T-Shirt",
"description": "Wear on cold winter nights",
"filetype": "png",
"fileLocation": "https: //myhomepage/hotpic.png",
"fileHash": "SHA 256 Hash of your Picture showing slogan / T-Shirt",
"fileSize": "623,456 bytes",
"license": "20 digit hex from payment"
}

Simple NFT – Watermark the image or include the address in the Metadata of the media before creating the hash. This is now a colored coin so protect it with your owner information by creating an IPF like the T-Shirt IPF above.

{
"HlyGrail": "NFT",

```
"addressIPF": "ADDRESS",
"owner": "OWNER",
"contact": {
"phone": "Your Phone Number",
"email": "Your Email",
"address": "Contact Address",
"other": "Whatever you want to put here like your website."
},
"title": "My NFT",
"description": "This is easily worth millions",
"filetype": "jpg",
"fileLocation": "IPFS",
"fileHash": "CIDxxxxxxxxxxxxxxxxxxxxxxxxxx",
"fileSize": "65,200 bytes",
"license": "20 digit hex from payment"
}
```

General IPF Type

This type will handle any situation because the data is in JSON. We use software that extracts what is necessary based on the type. Below is an example JSON and two readable text versions extracted from the JSON. One extracts only information for a Domain Name, ID, or Slogan. The other extracts all the data including the domain name, other files, locations, and other data that is not formally included such as file type. We include \n in the descriptions for carriage returns so software can read it.

```
{

    "HlyGrail": "IPF",

    "license": "IPF1",

    "userInfo": {

        "name": "Roger John",

        "email": "roger@email.ws",

        "ipfadd": "373Nb1fELgsbdXJbuLzA4qfdeSQ2hoTtps",

        "createdAt": "2023-09-05T07:33:03.714Z",

        "updatedAt": "2023-09-15T00:14:40.839Z"

    },

    "docs": [

        {

            "title": "mycryptopatent.com",
```

        "description": "This is a copyright for the name mycryptopatent and specifically mycryptopatent.com and all extensions.",

        "fname": "undefined",

        "hash": "undefined",

        "flocation": "bc1qpzw3u9wxxyp4l6nautpg0dvvn0j52277nys868"

    },

    {

        "title": "Rogers Will",

        "description": "Being of sound mind and body I spent it all.\nThe document below contains all the proof where I spent it so there is no need to go looking for it.",

        "fname": "whereispentit.docx",

        "hash": "09435b8f33f9316f85652c9e19240857d88e26c1b4d1be4a2d05ec3fe53bde5b",

        "flocation": "Safety box under my bed with gum wrappers."

    },

    {

        "title": "Neumi Condition Flyer",

        "description": "Great Marketing Flyer for Neumi. Pay me to use it.\nReal location to download and verify.",

        "fname": "conditions2.jpg",

        "hash": "749b12358f4b5594d763ef3f7ec28add17ee9b7652307ef77334febd0f3bdc4a",

        "flocation": "https://magich2o.com/images/conditions2.jpg"

    },

    {

        "title": "Personal Information",

        "description": "Roger.\nLives here.\nHas this email@email.com address.\nGet my passport, address, bank accounts, driver's license, and all from the document below.",

        "fname": "greatinfoforthedarkweb.xls",

        "hash": "fb0c7d606dcf5a2e2de946664f0053520257a38df8ce43ffe9bff287f94765b8",

        "flocation": "In the same safety box above."

    },

    {

        "title": "Business Opportunity Secret",

```
        "description": "Real opportunity for someone who can think outside the box.",

        "fname": "mysecrets.mp4",

        "hash": "4632921d5beab1f49b9b8ea876773bbb5da24ee5cc222b1a6cbefdf7a3f41198",

        "flocation": "https://mysecrets.ws"

    }

  ]

}
```

The above JSON file is formatted two ways, one below for domain name, the other below it as an IPF with multiple files. More than one thing can be protected at a time.

Domain Name Only

HlyGrail: IPF

License: IPF1

Intellectual Property File (IPF) for:

373Nb1fELgsbdXJbuLzA4qfdeSQ2hoTtps

Initially Owned by Roger John

        Email: roger@email.ws

The Intellectual Property was formatted into the IPF.json file.

The IPF.json file was encrypted AES-256 by 373Nb1fELgsbdXJbuLzA4qfdeSQ2hoTtps into IPF.json.aes the Intellectual Property File (IPF).

The Key to decrypt IPF.json.aes back to IPF.json is 373Nb1fELgsbdXJbuLzA4qfdeSQ2hoTtps.

The HASH (fingerprint) for the encrypted IPF.json.aes file is in the OP_RETURN of the FIRST transaction of bitcoin address 373Nb1fELgsbdXJbuLzA4qfdeSQ2hoTtps.

The OP_RETURN is proceeded by HlyGrail in hex or 486c79477261696c to make it easier to identify on the blockchain.

There can be NO other file matching the IPF.json.aes Intellectual Property file HASH stored in the OP_RETURN of 373Nb1fELgsbdXJbuLzA4qfdeSQ2hoTtps

NONE of the information below can be modified in any way and still match the HASH at the time the IPF was created.

Domain Name: mycryptopatent.com

Description: This is a copyright for the name mycryptopatent and specifically mycryptopatent.com and all extensions.

IPF Location: bc1qpzw3u9wxxyp4l6nautpg0dvvn0j52277nys868

The Domain Name is the BASE domain name or SLOGAN being protected by the IPF.

The Description may hold additional restrictions or identification about the protected IPF.

Usually, the Description states it is a copyright protection of the Domain Name and all internet extensions.

The Location is the bitcoin address holding the Domain Name in the OP_RETURN.

In some cases, the Location can hold a Slogan or other protected information in the OP_RETURN of the Location.

This IPF shows ownership of the domain or slogan copyright and was committed to the blockchain before the Location / Domain Name transaction.

This document is a human readable version of the IPF, is NOT the IPF, but it can be recreated from the IPF.json file.

The Intellectual Property File IPF is the IPF.json.aes. It is encrypted for Security and can have any name for the IPF.

In some cases, the IPF.json file is used to make it easier for other programs to read online.

Understanding the HlyGrail algorithm can be found at http://mycryptopatent.com.

HlyGrail IPF / Copyright Number 373Nb1fELgsbdXJbuLzA4qfdeSQ2hoTtps

Full IPF Below

HlyGrail: IPF

License: IPF1

Intellectual Property File (IPF) for:

373Nb1fELgsbdXJbuLzA4qfdeSQ2hoTtps

The files are held by Roger John

      Email: roger@email.ws

The Intellectual Property was formatted into the IPF.json file.

The IPF.json file was encrypted AES-256 by 373Nb1fELgsbdXJbuLzA4qfdeSQ2hoTtps into IPF.json.aes the Intellectual Property File (IPF).

The Key to decrypt IPF.json.aes back to IPF.json is 373Nb1fELgsbdXJbuLzA4qfdeSQ2hoTtps.

The HASH (fingerprint) for the encrypted file is in the OP_RETURN of the FIRST transaction of bitcoin address 373Nb1fELgsbdXJbuLzA4qfdeSQ2hoTtps.

The OP_RETURN is proceeded by HlyGrail in hex or 486c79477261696c.

There can be NO other file matching the IPF.json.aes Intellectual Property file HASH stored in the OP_RETURN of 373Nb1fELgsbdXJbuLzA4qfdeSQ2hoTtps

To verify this document, verify the hash of the encrypted IPF.json.aes file, then decrypt using the address in the file to obtain the plain IPF.Json file.\nThe IPF.json file contains the information that verifies the data in this document.

This document is a human readable version of the IPF, is NOT the IPF, but it can be recreated from the IPF.json file.

Every document described below can be obtained from Roger F Johnsrud or the IPF location,

and by hashing the document, you can verify the document matches the HASH.

If the document is encrypted, decrypt it using the bitcoin address in this file.

NONE of the documents below can be modified in any way and still match the HASH for the document at the time the IPF was created.

Title: mycryptopatent.com

Description: This is a copyright for the name mycryptopatent and specifically mycryptopatent.com and all extensions.

File Name: undefined

File Hash: undefined

File Location: bc1qpzw3u9wxxyp4l6nautpg0dvvn0j52277nys868

Title: Rogers Will

Description: Being of sound mind and body I spent it all.

The document below contains all the proof where I spent it so there is no need to go looking for it.

File Name: whereispentit.docx

File Hash: 09435b8f33f9316f85652c9e19240857d88e26c1b4d1be4a2d05ec3fe53bde5b

File Location: Safety box under my bed with gum wrappers.

Title: Neumi Condition Flyer

Description: Great Marketing Flyer for Neumi. Pay me to use it.

Real location to download and verify.

File Name: conditions2.jpg

File Hash: 749b12358f4b5594d763ef3f7ec28add17ee9b7652307ef77334febd0f3bdc4a

File Location: https://magich2o.com/images/conditions2.jpg

Title: Personal Information

Description: Roger.

Lives here.

Has this email@email.com address.

Get my passport, address, bank accounts, driver's license, and all from the document below.

File Name: greatinfoforthedarkweb.xls

File Hash: fb0c7d606dcf5a2e2de946664f0053520257a38df8ce43ffe9bff287f94765b8

File Location: In the same safety box above.

Title: Business Opportunity Secret

Description: Real opportunity for someone who can think outside the box.

File Name: mysecrets.mp4

File Hash: 4632921d5beab1f49b9b8ea876773bbb5da24ee5cc222b1a6cbefdf7a3f41198

File Location: https://mysecrets.ws

In some cases, there may be no supporting document files because the Title and Description fully explain the Intellectual Property.

The Intellectual Property File IPF is the IPF.json.aes. It is encrypted for Security and can have any name for the IPF.

In some cases, the IPF is not encrypted and uses the IPF.json file to make it easier for other programs to read online.

Understanding the HlyGrail algorithm can be found at http://mycryptopatent.com.

        HlyGrail IPF / Copyright Number 373Nb1fELgsbdXJbuLzA4qfdeSQ2hoTtps

Check back often for other standard types.