

OFAC SDN Search

System



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AADA ARIZONA
AUTOMOBILE
DEALERS
ASSOCIATION 

Representing Arizona's franchised new-car and -truck dealers

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OFAC SDN Search System Description

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OFAC SDN Search - System Description

Overview

The U.S. Treasury's **Office of Financial Asset Control (OFAC)** has implemented a new requirement that impacts automobile dealers around the country. Dealers are required to investigate a customer's background by checking the **Specially Designated Nationals (SDN) list** to see if transactions are banned for the customer.



In 2008, IBM implemented an OFAC search program as part of their dealer suite for use by Arizona used vehicle dealers. While several free OFAC searches are available on the internet, it was decided in September of 2008 to provide an easy-to-use interface that is directly available to AADA's electronic services customers from the AADA web pages. This allows customers to do the lookup without visiting a foreign web site, and hopefully, by increasing convenience, will help retain current customers and recruit new customers from the used car field.

Investigation of other SDN Searches

As part of the analysis for the system, free OFAC search pages at the following URLs were tested and analyzed for their capabilities, usability, and shortcomings:

- **Free OFAC Name Search**
<http://www.creditbureauconnection.com/login.htm>
- **Instant OFAC** www.instantofac.com
- **Ristken Software Services OFAC check**
<http://www.freeofaccheck.com/Home/tabid/155/ctl/Login/Default.aspx>

Some of the shortcomings of these sites include:

1. CreditBureauConnection.com and InstantOFAC.com do not show any Vessel information.

2. Ristken.com requires registration with personally identifiable information.
3. CreditBureauConnection.com requires an extra page and click to accept the terms.
4. Address and Remarks fields are always blank on Ristken.com's main data page and on the details screen.
5. Ristken.com displays an ID List which appears to be parsed from the 'Remarks' field. They also appear to be parsing 'aliases' from remarks which are not found in the alias file. The same is true with Date of Birth information. While the information may appear more usable when presented this way, manipulation and changes to the data increase site liability.
6. InstantOFAC appears to only search name and alias fields. It will not find data located solely in an address.
7. Fuzzy search example* – 'Palma del Rio' is in a name. All 3 sites bring up search results for 'Palma Riu'. Ristken still says 'Exact' match type, but 'riu' is not in any of the data.
8. Fuzzy search – Percentage match (InstantOFAC) and type of match (Exact) returned are not accurate.

All of these factors were 'corrected' while designing the AADA OFAC web site.

*While fuzzy search is not a defect in and of itself, the OFAC web site states that a name must be an exact match in order to be a hit, therefore the usefulness of fuzzy search is limited to cases where the auto dealer does not know the correct spelling of a name. While this should never be the case when buying a vehicle, similar functionality is provided using a simple Boolean 'OR' search where the dealer enters alternate spellings of a name. This resulted in a much less complex search, and lower cost and implementation time.

General Design Specifications

Platform

AADA's OFAC Search application was initially implemented in **Unisys BIS 10.1** using Ciber's **ICE-RADS 4.3.2** application development tool. The application shares the same physical server with the eTRP application, running Windows 2003 Server.

Isolation and Compartmentalization

The following measures were taken to effectively isolate the OFAC application from the eTRP application which runs in the same instance of BIS:

1. A New ICE Connection Pool (COOL-ICE-1), Configuration (APPS), and Gateway (APPS) were created for the OFAC application. All published URLs and links use this new Gateway.
2. The application runs under a new BIS department (40) and a new User-Id (ZMK2!JK9!KJ) rather than the sharing the existing eTRP ICE application logon and department.
3. A separate Database file (DBFILE17) was created for all OFAC Data and Tables.
4. A new virtual directory ('Apps Gateway') was created and registered with IIS for the application.

Access

The application is accessible from a link on the AADA Home Page <http://aada.com/>, from an icon on the toolbar of the eTRP application, and directly at the URL <https://trp.aada.com/apps/default.asp?category=ofac> .

The application is open to all web users without a logon.

Scheduled Data Refresh

The SDN list is currently refreshed from the OFAC FTP server every two hours. This relatively frequent update interval was chosen because OFAC has no schedule for updates. Updates can occur at any time of the day or night, and at any frequency.

ICE Gateway Configuration

Since the OFAC application security requirements are different than eTRP (it does not require a logon, and needs a different timeout value), a new ICE connection pool, configuration, and Gateway were configured using a different BIS department and logon. The following images document the configuration.

Figure 1: Connection Pool

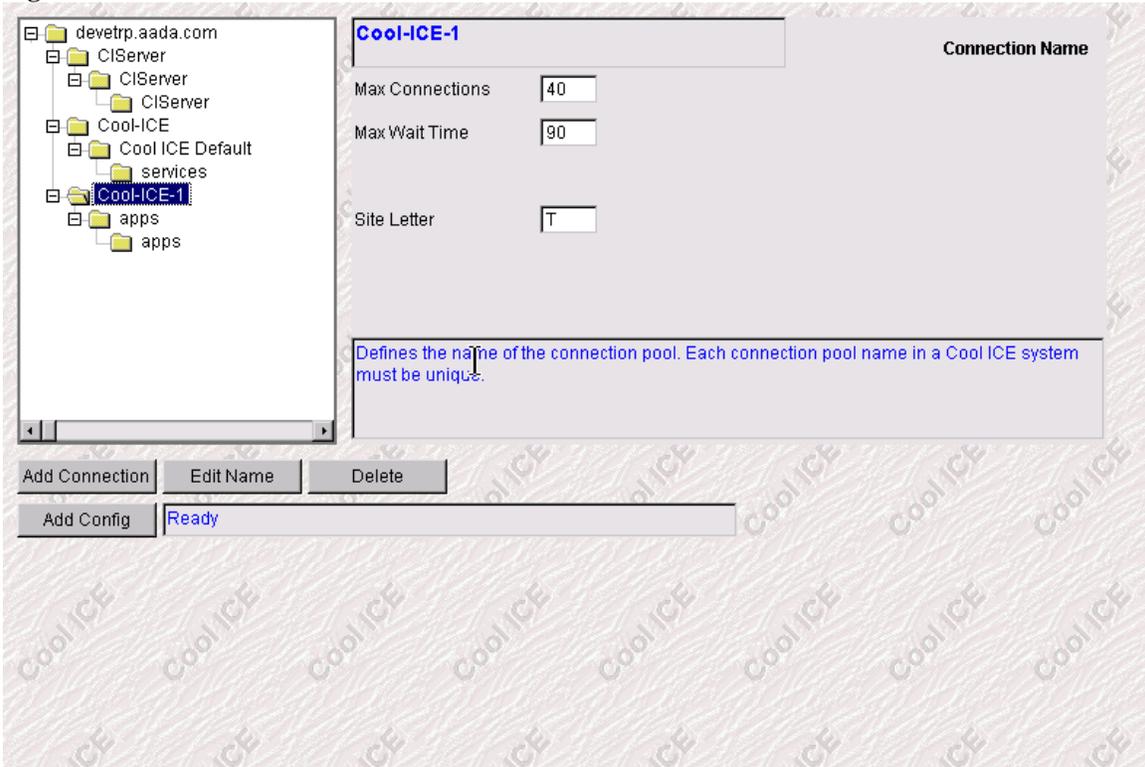


Figure 2: Configuration ‘apps’

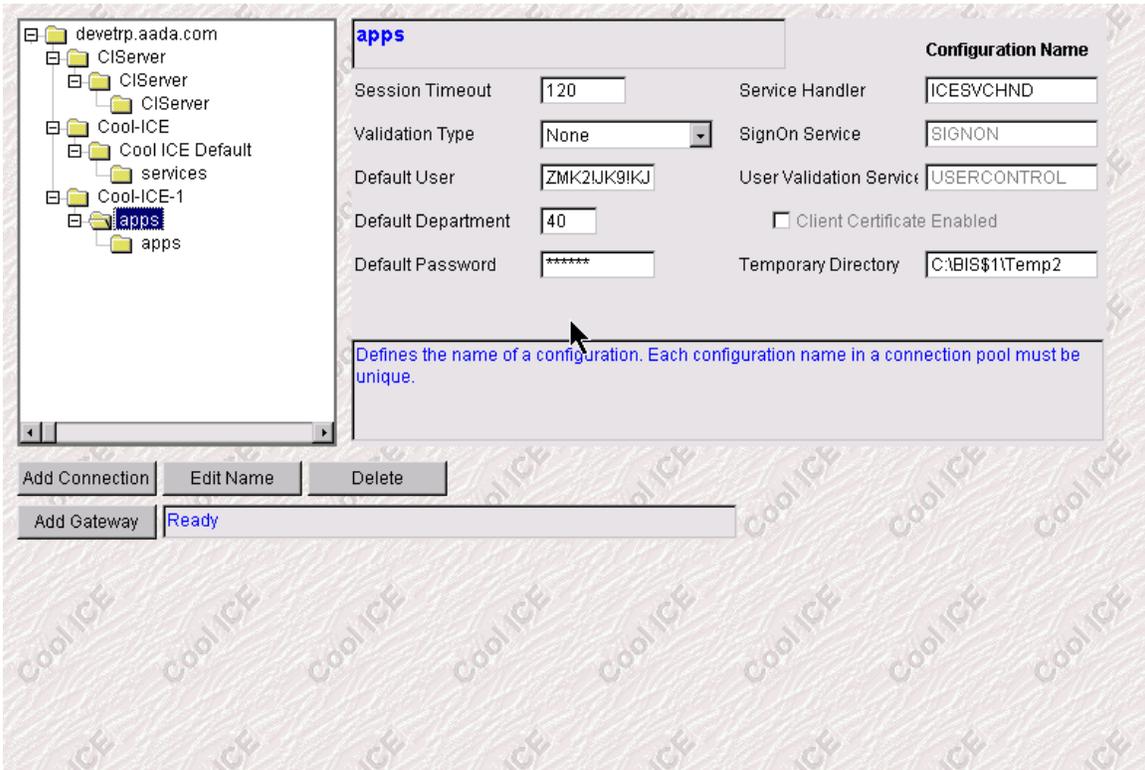
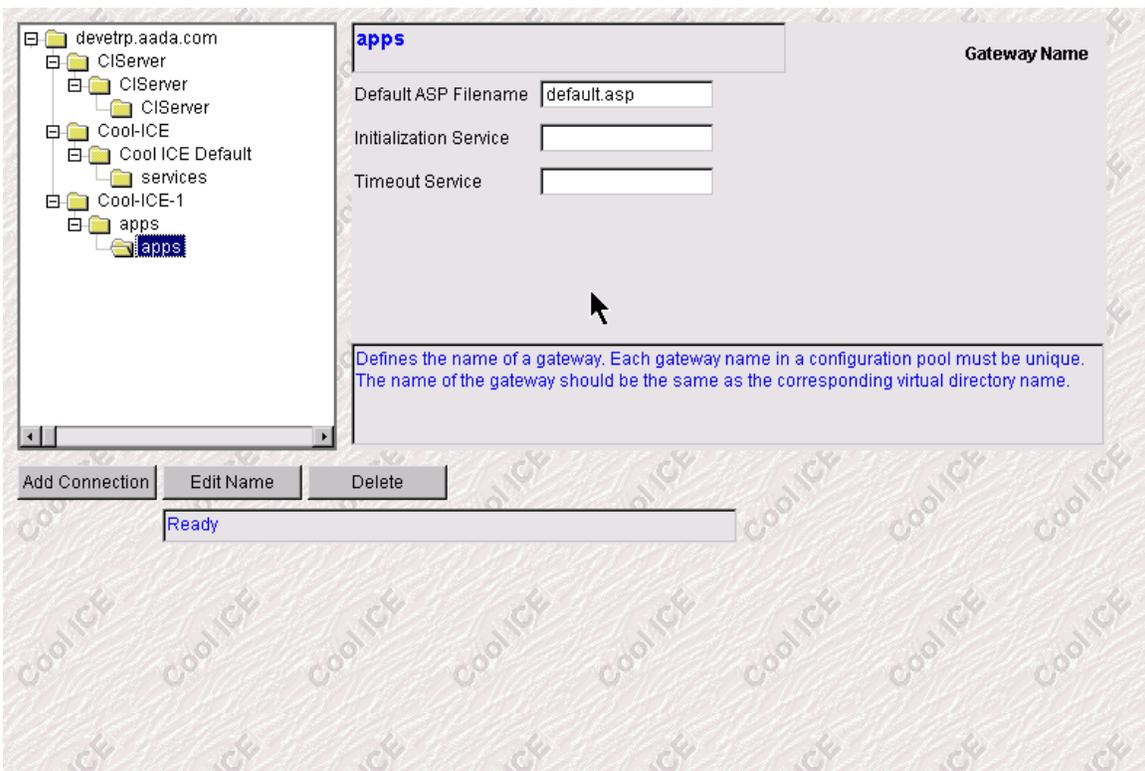


Figure 3: Gateway ‘apps’



ICE Customization

The following ICE services were customized and are shared with eTRP. They should not be modified without investigating the impact to other applications:

2b3950 – customized service handler message

92e3950 – customized error message

BIS Data Locations

The Database for the OFAC application is located in BIS Cabinet 20, Drawer G.

The RADS application cabinet is 38.

ICE-RADS Customization

- Web application service access: SDNDIALOG set for Direct access
- Custom Styles in Table_Style
- MainMenu: (2H): Line 51 – force load of RADSSCN variable to SDNDIALOG module so that main menu is always bypassed:
@IF <RADSSCN> eq " LDV,p
<RADSSCN>h12='SDNDIALOG',<RADSFUN>h1,<RADSSVC>h1,<RADSFrm>h1 .
- User_Logoff (305H): Changed 'session expired' message
- Display_Toolbar (313H): Removed default icons 'Options' 'Admin',
- Display_HelpTopic (320H): Removed 'General' and 'About' buttons
- ScnFrm_Display (384H): Expanded txt fields (RDL columns and variables) from 64 chars to 80 chars.

Database Specifications

OFAC SDN Source Data

OFAC offers several data formats including CSV and Fixed Field. The fixed field length file was selected to be most compatible with the BIS Database.

OFAC splits the data into 3 separate files: SDN.FF (Main Data including names), ALT.FF(alternate names, a.k.a. alias data), and ADR.FF (Address Data).

The formats of the 3 source files are documented in the following sections. The tables are taken from the source document found at http://www.ustreas.gov/offices/enforcement/ofac/sdn/dat_spec.txt.

For all files, the record separator is a carriage return, and the literal string "-0-" indicates a null value. (This is changed to three spaces during the reformatting on upload.)

SDN.FF

Column sequence	Column Name	Type	Size	Position	Description
1	ent_name	number	10	1	Unique record identifier/unique listing identifier
2	SDN_Name	Text	350	11	Name of sdn
3	SDN_Type	Text	12	361	Type of SDN
4	Program	Text	50	373	Sanctions program name
5	Title	Text	200	423	Title of an individual
6	Call_Sign	Text	8	623	Vessel call sign
7	Vess_type	Text	25	621	Vessel type
8	Tonnage	Text	14	656	Vessel tonnage
9	GRT	Text	8	670	Grass registered tonnage
10	Vess_Flag	Text	40	678	Vessel flag
11	Vess_owner	Text	150	718	Vessel owner
12	Remarks	Text	1000	858	Remarks on sdn
	END OF ROW			1868	

ADD.FF

Column sequence	Column Name	Type	Size	Position	Description
1	ent_name	number	10	1	Link to Unique listing
2	Add_num	Number	10	11	Unique record identifier
3	Address	Text	750	21	Street address of SDN
4	City	Text	50	771	City of address
5	Country	Text	250	821	Country of address
6	Add_remarks	Text	200	1071	Remarks on address
	END OF ROW			1271	

ALT.FF

Column sequence	Column Name	Type	Size	Position	Description
1	ent_name	number	10	1	Link to Unique listing
2	Alt_num	Number	10	11	Unique record identifier
3	Alt_type	Text	8	21	Type of alternate identity (aka, fka, nka)
4	Alt_name	Text	350	29	Alternate identity
5	Alt_remarks	Text	200	379	Remarks on alternate identity
	END OF ROW			579	

Local File Changes

The following modifications are made when the data is retrieved into BIS:

1. The Address field is downsized to 500 characters from 750 characters. (The largest address actually present in the data during testing was 115 characters.)
2. Remark fields for sdn.ff and alt.ff are placed on asterisk (*) trailer lines following tab line data, except for alt.ff where they are on the tab line.
3. The literal '-0-' which indicates a null value is replaced with three spaces in BIS during the upload.

Data Volume

The following lists the files and their volume at the time of implementation. Daily volume can vary slightly. The 'wrapped' number of lines is applicable when the file is retrieved (@RET) into BIS.

File	# Records	# Wrapped lines
SDN.FF	4025	8050
ADD.FF	8390	16780
ALT.FF	4176	4176

BIS OFAC Database

A new BIS database file (DBFile17) was created to contain the OFAC data and tables. The following table describes the registered databases and tables accessed by the OFAC application:

Table 1: Table_Database (OFAC)

Database	Cabinet	Drw	Rpt	Thru	Comment	Sys
OFAC ftp directory	20	G	1		Files and timestamps from server	APP
OFAC SDN Ret Log	20	G	2		Log FTP and RET of files	APP
SDN Address Table	20	G	7		OFAC SDN Address Data (add.ff)	APP
SDN Alt Table	20	G	6		OFAC Alternate Id Table (alt.ff)	APP
SDN Hit Log	20	G	3		List of hits to OFAC SDN list	APP
SDN Hit Log Archive	20	G	4		List of hits to OFAC SDN list	APP
SDN Main Table	20	G	5		OFAC SDN Main Data (sdn.ff)	APP
Search Entity Type	20	G	8		List of search entities	APP

Related Application Access

The SDN logs and tables are also accessed by the application TRP-AADA for administrative purposes, and are listed in Table_Database for that application.

Process Specifications

Data Upload

The upload and reformatting of SDN List data is done in the Module Data_GetOFACSDN (176G34). This module is scheduled to run at 2 hour intervals under the User-Id MAPCOORD as the standalone run GetOFACSDN, and is part of the TRP-AADA application to facilitate manual uploads when necessary. Each upload attempt is logged in the 'OFAC SDN Ret Log'.

All of the OFAC upload functionality is accessible through the TRP-AADA category 'Upload', including manual upload, viewing the upload log, and viewing the remote ftp directory at the time of the last upload as described in the next section.

Administrative Functions

The following Administrative functions are available under the TRP-AADA menu system:

Category 'Upload'

- **OFAC SDN List Upload Log** (OFACUPLDLOG – 340I34):
Displays log of ftp and retrieve attempts
- **OFAC Server Directory** (OFACSERVER – 343I34):
Displays directory listing of OFAC server at time of last upload attempt
- **Upload OFAC SDN Files** (UPLOADOFAC – 341I34):
Initiate real-time upload of SDN List

Category 'Security'

- **OFAC SDN Hit Log** (OFACHITLOG – 342I34):

Displays list of user matches against SDN List

- **OFAC Hit Log Archive** (OFACHITARCH – 344I34):
Displays archived user matches.

Search Functionality

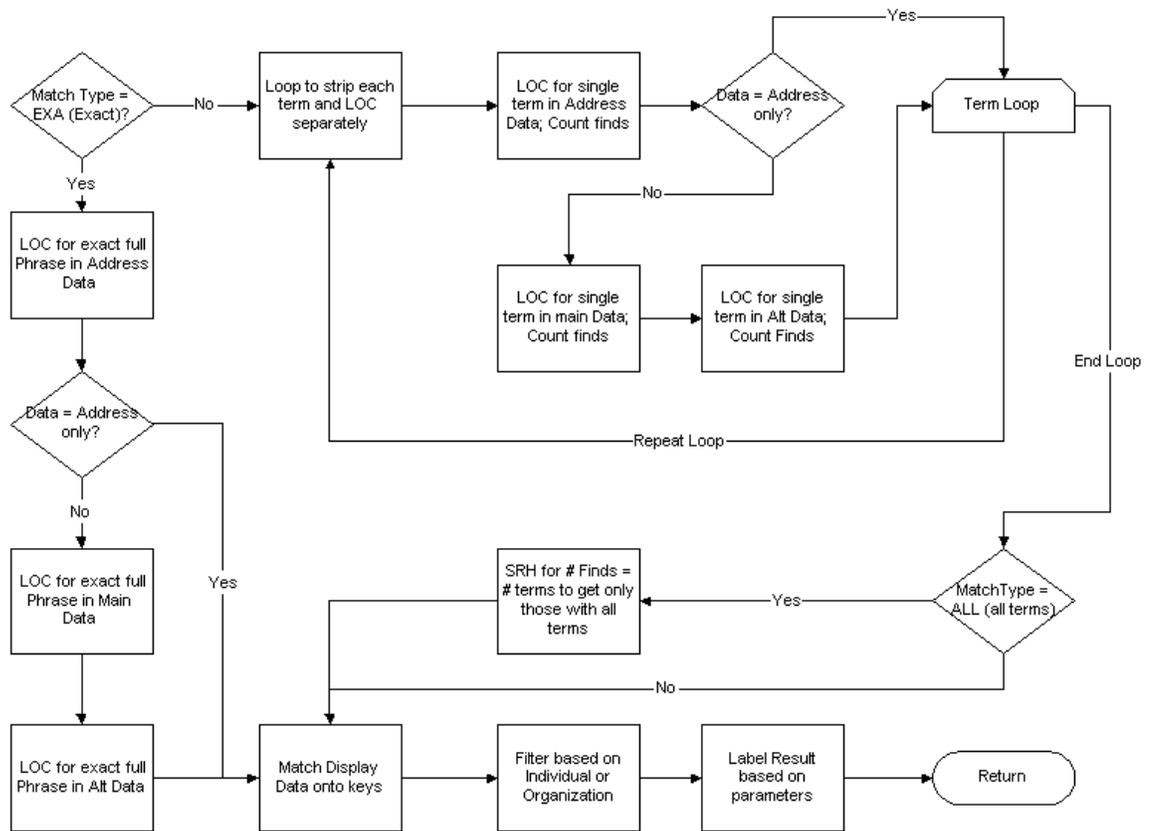
The search logic for the SDN search is located in the module Data_SearchSDN (101G32). Input parameters for the module are listed in the following table:

Table 2: Search Parameters

Variable	Values	Description
STYP	See 'Search Entity Type' table	Limits search to a particular data type, or to address data fields
STM	ANY, ALL, EXA (exact)	Search Term Flag – determines type of Boolean search
SRH	User input	Keywords to search for

The following flow chart outlines the general search logic for the various parameters.

Figure 4: SDN Search Logic



Screen Flow

The following sections document the screen flow for an SDN search, and describe any special validation, modifications, and usage.

Search Input Page (Home)

Figure 5: OFAC Search Input (Home Page)

OFAC SDN Search **AADA**

Enter SDN Search Criteria

Search for: Individual

Search terms: abu

Match any terms Match all terms Match exact phrase

Search Help Close

Terms of Use:

By pressing the 'Search' button on this page, the user agrees to hold AADA harmless for any liability or responsibility as to the accuracy and/or subsequent usage of the information returned. AADA does not guarantee that when the returned OFAC information indicates a match, that the individual or organization is in fact a Specially Designated National or Blocked Person. This is simply a warning flag indicating that further investigation should be done before any transaction is completed. Clients are responsible for establishing their own policy and procedures for handling matching OFAC information. This site is not affiliated with the Office of Foreign Assets Control, the U.S Treasury or any other government agency.

This screen serves as the home page for the application. All external links lead to this page, and the RADS main menu redirects to this page. This screen module serves as a dialog, as it was undesirable for the application to open with a pop-up dialog (RADS Standard).

Values for the drop down list are taken from the table 'Search Entity Type'. Internal JavaScript validates that the keyword field 'Search Terms' is not blank.

The 'Close' button closes the browser window.

Search Result Page

Figure 6: Search Result Page

106 possible matches found in SDN List dated (Match Any Terms)

SDN Number	Name	SDN Type	Match(es) Found in	Program(s)
2674	ABBAS, Abu	individual	Remarks	SDT
2681	HAWATMA, Nayif	individual	Alias Data	SDT
2687	NIDAL, Abu	individual	Remarks	SDT
3753	SALAH, Mohammad Abd El-Hamid Khalil	individual	Alias Data	SDT
3754	ABU MARZOOK, Mousa Mohammed	individual	Alias Data	SDT SDGT
6367	AL-MASRI, Abu Hafs	individual	Alias Data	SDT SDGT
6368	MUSA, Rifa'i Ahmad Taha	individual	Alias Data	SDT
6862	HAMIEH, Jamiel	individual	Alias Data	SDNTK
6903	ABU HAFSA THE MAURITANIAN	individual	Name Data	SDGT
6905	ABU ZUBAYDAH	individual	Alias Data	SDGT
6906	AL-IRAQI, Abd al-Hadi	individual	Alias Data	SDGT
6915	ABDULLAH, Abdullah Ahmed	individual	Alias Data	SDGT
6916	ALI, Ahmed Mohammed Hamed	individual	Alias Data	SDGT
6918	AL-MUGHASSIL, Ahmad Ibrahim	individual	Alias Data	SDGT
6924	FADHIL, Mustafa Mohamed	individual	Alias Data	SDGT
6925	GHAILANI, Ahmed Khalfan	individual	Alias Data	SDGT
6927	MOHAMMED, Fazul Abdullah	individual	Alias Data	SDGT

This page is a standard ICE-RADS Scrolling list module. The one nonstandard feature is that the 'Reselect' icon does not call a dialog module; rather it returns to the previous screen.

Search Detail Page

Figure 7: Search Details Page

The screenshot displays the 'OFAC SDN Search' application interface. At the top, there are navigation icons for 'Back', 'Reselect', and 'Print', along with a 'Help' icon. The main header features the 'OFAC SDN Search' logo and the 'AADA' logo. The central content area is titled 'Search Details from SDN file dated' and contains the following information:

SDN Number: **2674** SDN Type: **individual** Program(s): **SDT**
SDN Name: **ABBAS, Abu**
Title: **Director of PALESTINE LIBERATION FRONT - ABU ABBAS FACTION**
Remarks: **DOB 10 Dec 1948; Director of PALESTINE LIBERATION FRONT - ABU ABBAS FACTION.**

Alias Information
Alias
Type Alias
aka ZAYDAN, Muhammad

Address Information
Address City Country

This screen is the drill-down detail screen for the previous module. It was designed as a custom screen module in order to provide flexibility for the varying widths of the data, and for unknown lengths of the Alias and Address lists.

Related Links

OFAC Home

The place to start for information about the SDN List.

<http://www.ustreas.gov/offices/enforcement/ofac/>

OFAC FAQ

Frequently Asked Questions about files and use.

<http://www.ustreas.gov/offices/enforcement/ofac/faq/index.shtml>

SDN List Download

Manual download of all delimited files.

<http://www.ustreas.gov/offices/enforcement/ofac/sdn/delimit/index.shtml>

SDN List FTP Server

Programmed download of all delimited files including file descriptions.

ftp://ofacftp.treas.gov/fac_delim/