



# Building Inflation Tables and CER Libraries

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Presented by James K. Johnson





## **Building Inflation Tables and CER Libraries**

**Presenter:** James K. Johnson

The ACEIT Librarian is a new tool in ACEIT 7.0 that combines the Automated Information Manager (AIM) which is used to create CERs, and the Inflation Editor which is used to build custom inflation indices. Now users can easily work with Cost Estimating Relationship (CER) libraries and Inflation Tables inside a single utility. The Librarian makes it possible for users to have CER libraries and Inflation Tables customized for their particular use. All CER libraries and Inflation Tables can then be easily distributed to other users. This session will demonstrate how to Create a Custom Inflation Table, Create a Custom Appropriation, Create a New CER Library, Create a New CER, and Use/Share Custom Libraries.

# Outline

- Introduction to Librarian
- Creating Custom Inflation Table
- Creating Custom Appropriation
- Creating a new CER Library
- Adding a CER to the Library
- Using and Sharing Custom Libraries

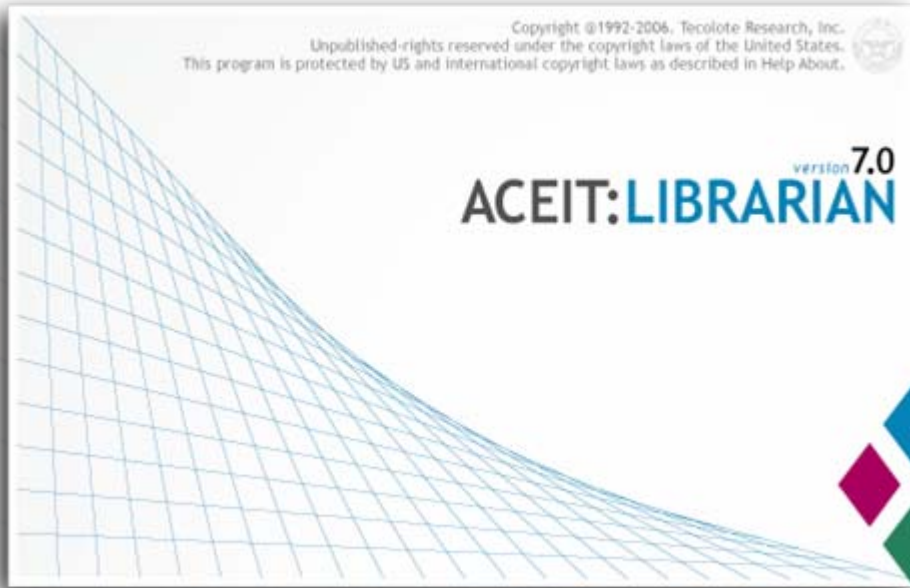


# Introduction to Librarian





# Introducing ACEIT Librarian



## ■ Combination of:

- ACEIT Information Manager (AIM)
  - Create CERs
- ACEIT Inflation Editor
  - Create Inflation Indices

- **Efficient**: Single utility to manipulate Inflation and Methodology Libraries
- **Productive**: Allows for sharing of custom libraries between users
- **Versatile**: Provides for customization of all types of libraries





# Launching the Librarian

- Start > Programs > ACEIT 7.0 > ACEIT Tools > Librarian
- Opens to a main screen for viewing System and Custom libraries
  - Methodology (CER) Libraries
  - Inflation Libraries

**DoFA - ACEIT Librarian Editor**

File Edit Library Documentation Tools View Help

**Inflation Library**

DoFA

- USG
  - AIR FORCE
  - ARMY
  - DEF AGENCY
  - FAA
  - MARAD
  - NASA
  - NAVSEA
  - NAVY
  - USCG
  - USMC

**Methodology Library**

System  Custom

**Table:** DoFA Inflation Rates for MCE FY05/06

Code	Term	Description	Revision
0001	AUST	AUSTRALIA RATES - ...	10-May-2006
0002	USA	UNITED STATES RA...	10-May-2006
0003	DENMAR	DENMARK RATES	10-May-2006
0004	ISRAEL	ISRAEL RATES	10-May-2006
0005	CANADA	CANADA RATES	10-May-2006
0006	UK	UK RATES	10-May-2006
0007	GERM	GERMANY RATES	10-May-2006
0008	FRANCE	FRANCE RATES	10-May-2006
0009	ITALY	ITALY RATES	10-May-2006
0010	SWEDEN	SWEDEN RATES	10-May-2006
0011	NZ	NEW ZEALAND RAT...	10-May-2006
0012	OTHER	OTHER RATES	10-May-2006
0013	AUST_C	AUSTRALIA RATES - ...	10-May-2006

**Tasks**

- View Appropriation Properties
- View Indices

**Favorites**

**Recent Libraries**

- DoFA
- USG
- ASC Aero Equip Spt Factors
- AIR FORCE



# Navigating the Librarian

## ■ Explorer View

- Left hand pane, similar to MS Outlook
- Navigate to desired library

## ■ Library View

- Center pane, displays data in the selected library
- Displays information associated with the selected library (Methodology or Inflation)

## ■ Task View

- Right pane, quick access to common tasks

The screenshot shows the DoFA - ACEIT Librarian Editor application window. The interface is divided into three main panes:

- Explorer View (Left Pane):** Displays a tree structure under "Inflation Library". The "DoFA" folder is selected, showing a list of agencies: USG, AIR FORCE, ARMY, DEF AGENCY, FAA, MARAD, NASA, NAVSEA, NAVY, USCG, and USMC. Below this is the "Methodology Library" section with checkboxes for "System" (checked) and "Custom".
- Library View (Center Pane):** Displays a table titled "DoFA Inflation Rates for MCE FY05/06". The table has columns for Code, Term, Description, and Revision.
- Task View (Right Pane):** Contains sections for "Tasks" (View Appropriation Properties, View Indices), "Favorites", and "Recent Libraries" (DoFA, USG, ASC Aero Equip Spt Factors, AIR FORCE).

Code	Term	Description	Revision
0001	AUST	AUSTRALIA RATES - ...	10-May-2006
0002	USA	UNITED STATES RA...	10-May-2006
0003	DENMAR	DENMARK RATES	10-May-2006
0004	ISRAEL	ISRAEL RATES	10-May-2006
0005	CANADA	CANADA RATES	10-May-2006
0006	UK	UK RATES	10-May-2006
0007	GERM	GERMANY RATES	10-May-2006
0008	FRANCE	FRANCE RATES	10-May-2006
0009	ITALY	ITALY RATES	10-May-2006
0010	SWEDEN	SWEDEN RATES	10-May-2006
0011	NZ	NEW ZEALAND RAT...	10-May-2006
0012	OTHER	OTHER RATES	10-May-2006
0013	AUST_C	AUSTRALIA RATES - ...	10-May-2006

# Creating Custom Inflation Table







# Glossary/Definitions

- **Inflation** – Measures the change in price from one year to another
- **Indices** – Two Types: **Compound** and **Composite** (also called **Raw** and **Weighted**)
  - Allow for normalization of costs to a constant year
- **Raw Inflation Rate** - % change in value of money from year 1 to year 2, etc.
- **Outlay Rates (also called Expenditure Profiles)** – represent the proportion of program dollars that will be spent in each year
- **Compound (Raw) Indices** – Calculated using the Raw inflation rate. Used to normalize costs from a particular base year to another year
- **Composite (Weighted) Indices** – Calculated using Compound (Raw) indices and outlay rates (expenditure profile). Used to convert base year dollars to then-year (budget) dollars, or to compute **funding requirements**



# Creating an Inflation Index

## Five Steps to Create an Inflation Index

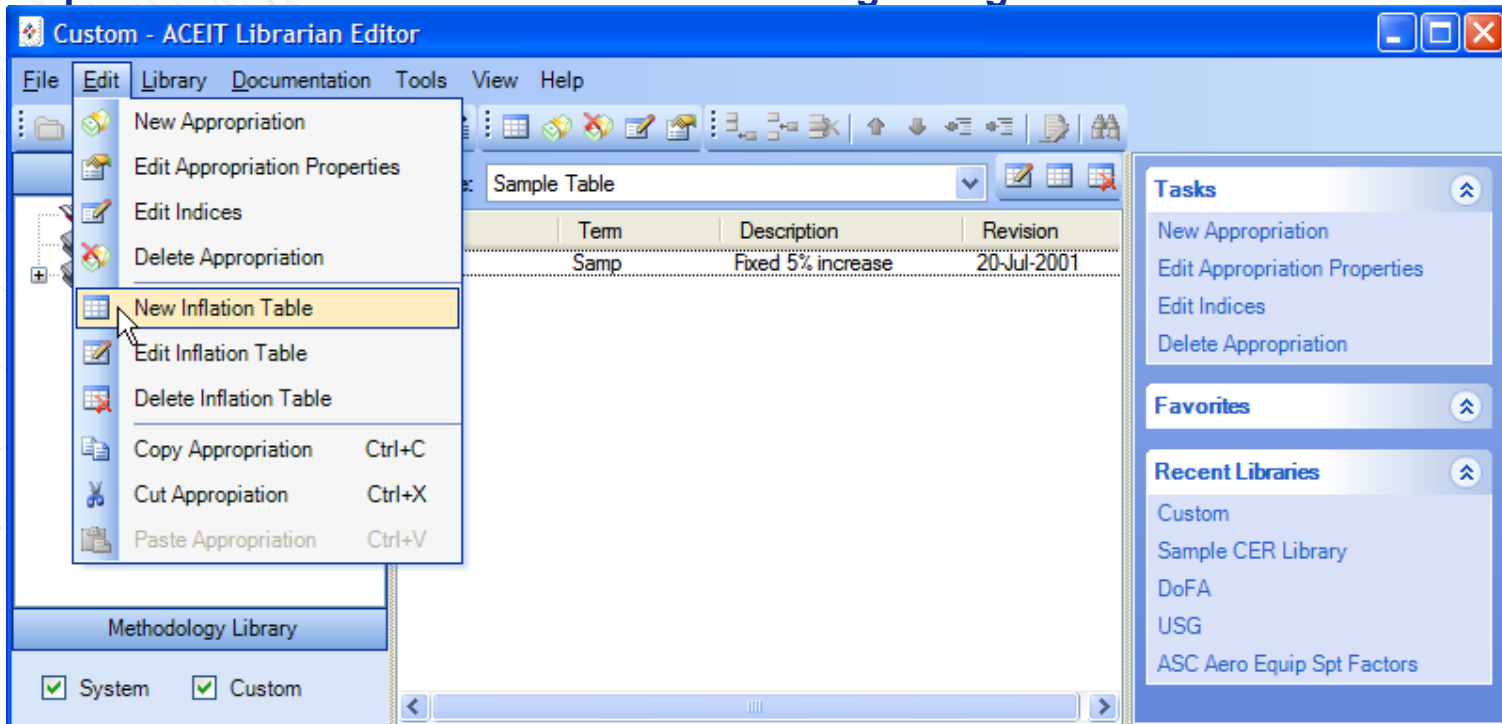
- **Step 1: Define the set of goods and services, or overall collection of items (Table). For example, “US Consumer Electronics”**
- **Step 2: Define the specific elements (appropriations) within the collection. For example, “TV, Stereo, Computer”**
- **Step 3: Collect historical and/or projection pricing data for the identified elements**
- **Step 4: Calculate the yearly overall inflation rate for the entire collection**
  - Weighted average of the elements
- **Step 5: Assign a base year, value = 1.0**

**Results: Compound (Raw) Inflation Indices**



# Creating a Custom Inflation Table

- **Custom Inflation Tables and/or Appropriations can be added into the Custom Library**
  - By default, the Librarian contains one custom inflation table (Sample Table) with one appropriation (1234) and its associated indices
  - You can add new appropriations and their associated indices to the existing table or create a new table to store this data
  - Custom Tables may contain multiple appropriations
- **Step 1: Navigate to the Inflation Library**
- **Step 2: Click on New Table icon (  ) or select Edit > New Inflation Table**
- **Step 3: Enter table information in the resulting dialog**





# Creating a New Appropriation

- **Step 1:** Navigate to the desired custom Inflation Table
  
- **Step 2:** Click on the New Appropriation icon (💰), or select **Edit > New Appropriation** from the menu
  
- **Step 3:** Enter information about the indices
  - Raw/Weighted
  - Yearly Escalation and Outlay rates (Librarian calculates resulting raw/weighted indices)

A screenshot of a software dialog box titled "Appropriation Properties". The dialog is organized into several sections:

- Appropriation Details:** Contains fields for "Code" (1234), "Revision Date" (20-Jul-2001), "Term" (Samp), and "Base Year" (2001). A "Description" field contains "Fixed 5% increase".
- Inflation Inputs:** Features three radio buttons: "Fixed Rate" (unselected), "Raw/Compound indices" (selected), and "Yearly Escalation Rates" (unselected). Below these are input fields for a percentage, "From Year" (1998), and "To Year" (2016).
- Use Weighted:** Features three radio buttons: "None" (unselected), "Weighted/Composite Indices" (selected), and "Outlay Rates/Expenditure Profiles" (unselected). A "Calculation Method" dropdown menu is also present.
- Inflation Source:** Contains a dropdown for "Agency" (Custom), a "Source Code" field (ACE), and a "Source Description" field (Sample ACE Inflation table).

At the bottom of the dialog are three buttons: "OK", "Cancel", and "Help".



# Enter Inflation Indices Directly

- **Step 4:** Enter indices manually or paste indices from Excel or another spreadsheet
  - **White area indicates data input. Grey area indicates calculated fields**

- **Step 5:** Close the dialog with **File > Close** or red X

- The new index is now available for use within ACE

The screenshot shows a software window with a blue title bar containing the text "Appropriation Indices - Samp, 1234 - Fixed 5% increase (BY2001)". Below the title bar is a menu bar with "File", "Edit", and "Help". A toolbar with various icons is located below the menu bar. The main area of the window contains a table with the following data:

	Year	Escalation (%)	Compound	Composite
1	1998		.86383800000000	.86383800000000
2	1999	5.000	.90702900000000	.90702900000000
3	2000	5.000	.95238100000000	.95238100000000
4	2001	5.000	1.00000000000000	1.00000000000000
5	2002	5.000	1.05000000000000	1.05000000000000
6	2003	5.000	1.10250000000000	1.10250000000000
7	2004	5.000	1.15762500000000	1.15762500000000
8	2005	5.000	1.21550600000000	1.21550600000000
9	2006	5.000	1.27628200000000	1.27628200000000
10	2007	5.000	1.34009600000000	1.34009600000000
11	2008	5.000	1.40710000000000	1.40710000000000
12	2009	5.000	1.47745500000000	1.47745500000000
13	2010	5.000	1.55132800000000	1.55132800000000
14	2011	5.000	1.62889500000000	1.62889500000000
15	2012	5.000	1.71033900000000	1.71033900000000
16	2013	5.000	1.79585600000000	1.79585600000000
17	2014	5.000	1.88564900000000	1.88564900000000
18	2015	5.000	1.97993200000000	1.97993200000000
19	2016	5.000	2.07892800000000	2.07892800000000





# Using the Appropriation Wizard

## ■ Step 1

Appropriation Wizard

Please select an inflation table below or create a new table that the new appropriation will be included.

Sample Table

Create New Inflation Table

<< Back Next >> Finish Cancel Help

## ■ Step 2

Appropriation Wizard

Enter the Appropriation Details:

Code: 6745 (e.g., 3600) Term: SBCA (e.g., RDTEA)

Base Year: 2007 Revision Date: 15-Jan-2007

Description: Annual Inflation Factor Ex

<< Back Next >> Finish Cancel Help

## ■ Step 3

Appropriation Wizard

How is Inflation Rate Represented?

Fixed Escalation Rate

Enter Rate: % (e.g., 3)

Raw/Compound Indices

Yearly Escalation Rates

Enter Year Range:

From Year: 1997 To Year: 2017

<< Back Next >> Finish Cancel Help

## ■ Step 4

Appropriation Wizard

Apply Yearly Weighting Factors?

No. All money is spent in the year funds are appropriated.

Yes. Money is spent over multiple years

I have composite/weighted indices.

I have outlay rates/expenditure profiles.

Weighted indices will be calculated from the raw/compound indices and outlay rates provided using the following method:

Standard

<< Back Next >> Finish Cancel Help



# Specifying Annual Inflation Factors

- Step 5 – Input
  - Specify % for each year
  - Compound (Raw) and Composite (Weighted) are calculated for you by Librarian based on the specified Escalation %
  - In this example, No weighting factors/outlay rates therefore Raw = **Weighted**

## Inflation Rate: Inputs and Outputs

- Fixed Escalation Increase
  - Librarian will auto-calculate the Compound and Composite values
  - Can provide Outlay Rates/Expenditure profile if needed
- Compound (Raw) Indices
  - No Outlay Rates/Expenditure Profile
    - Librarian will ask for Compound
  - Yes Outlay Rates/Expenditure Profile
    - Librarian will ask for Compound and Composite
- Yearly Escalation Rates
  - No Outlay Rates/Expenditure Profile
    - Librarian will ask for Escalation %
  - Yes Outlay Rates/Expenditure Profile
    - Librarian will ask for Escalation % and Composite

	Year	Escalation (%)	Compound	Composite
1	1997	3.000	.67039240948581	.67039240948581
2	1998	4.000	.69720810586524	.69720810586524
3	1999	4.000	.72509643009985	.72509643009985
4	2000	4.000	.75410028730385	.75410028730385
5	2001	4.000	.78426429879600	.78426429879600
6	2002	4.000	.81563487074784	.81563487074784
7	2003	4.000	.84826026557776	.84826026557776
8	2004	4.200	.88388719673202	.88388719673202
9	2005	4.200	.92101045899477	.92101045899477
10	2006	4.200	.95969289827255	.95969289827255
11	2007	4.200	1.00000000000000	1.00000000000000
12	2008	4.200	1.04200000000000	1.04200000000000
13	2009	4.200	1.08576400000000	1.08576400000000
14	2010	4.200	1.13136608800000	1.13136608800000
15	2011	4.200	1.1788834636960	1.1788834636960
16	2012	4.200	1.2283965691712	1.2283965691712
17	2013	4.200	1.2799892250764	1.2799892250764
18	2014	4.500	1.3375887402048	1.3375887402048
19	2015	4.500	1.3977802335140	1.3977802335140
20	2016	4.500	1.4606803440222	1.4606803440222
21	2017	4.500	1.5264109595032	1.5264109595032



# Specifying Expenditure Profiles

- Funds obligated in one year will be spent over several subsequent years (expended)
- Expenditure profiles represent the percent of Total Obligation Authority (TOA) expended in any particular year

	Year	Escalation (%)	Compound	Composite	Year 1 (%)	Year 2 (%)	Year 3 (%)
1	2007	1.000	1.000000000000	1.03282774197	20.000	50.000	30.000
2	2008	3.000	1.030000000000	1.06441504503	20.000	50.000	30.000
3	2009	3.000	1.060900000000	1.09803565697	20.000	50.000	30.000
4	2010	3.200	1.094848800000	1.13317279799	20.000	50.000	30.000
5	2011	3.200	1.12988396160	1.16943432753	20.000	50.000	30.000
6	2012	3.200	1.16604024837	1.20753717381	20.000	50.000	30.000
7	2013	3.200	1.20335353631	1.24809246506	20.000	50.000	30.000
8	2014	3.400	1.24426755655	1.29052760888	20.000	50.000	30.000
9	2015	3.400	1.28657265347	1.33440554758	20.000	50.000	30.000
10	2016	3.400	1.33031612369	1.37977533619	20.000	50.000	30.000
11	2017	3.400	1.37554687190	1.42668769763	20.000	50.000	30.000
12	2018	3.400	1.42231546554	1.47602435223	20.000	50.000	30.000
13	2019	3.400	1.47067419137	1.52854758559	20.000	50.000	30.000
14	2020	3.600	1.52361846226	1.58357529867	20.000	50.000	30.000
15	2021	3.600	1.57846872690	1.64058400943	20.000	50.000	30.000
16	2022	3.600	1.63529360107	1.69964503377	20.000	50.000	30.000
17	2023	3.600	1.69416417071	1.76181843916	20.000	50.000	30.000
18	2024	3.600	1.75515408085	1.82803354999	20.000	50.000	30.000
19	2025	3.800	1.82184993593	1.89855762969	20.000	50.000	30.000
20	2026	3.800	1.89108023349	1.97370733031	20.000	50.000	30.000
21	2027	4.000	1.96672344283	2.05265562352	20.000	50.000	30.000

**Appropriation Wizard**

**Apply Yearly Weighting Factors?**

No. All money is spent in the year funds are appropriated.

Yes. Money is spent over multiple years

I have composite/weighted indices.

I have outlay rates/expenditure profiles.

Weighted indices will be calculated from the raw/compound indices and outlay rates provided using the following method:

Standard

Army

Standard

<< Back   Next >>   Finish   Cancel   Help

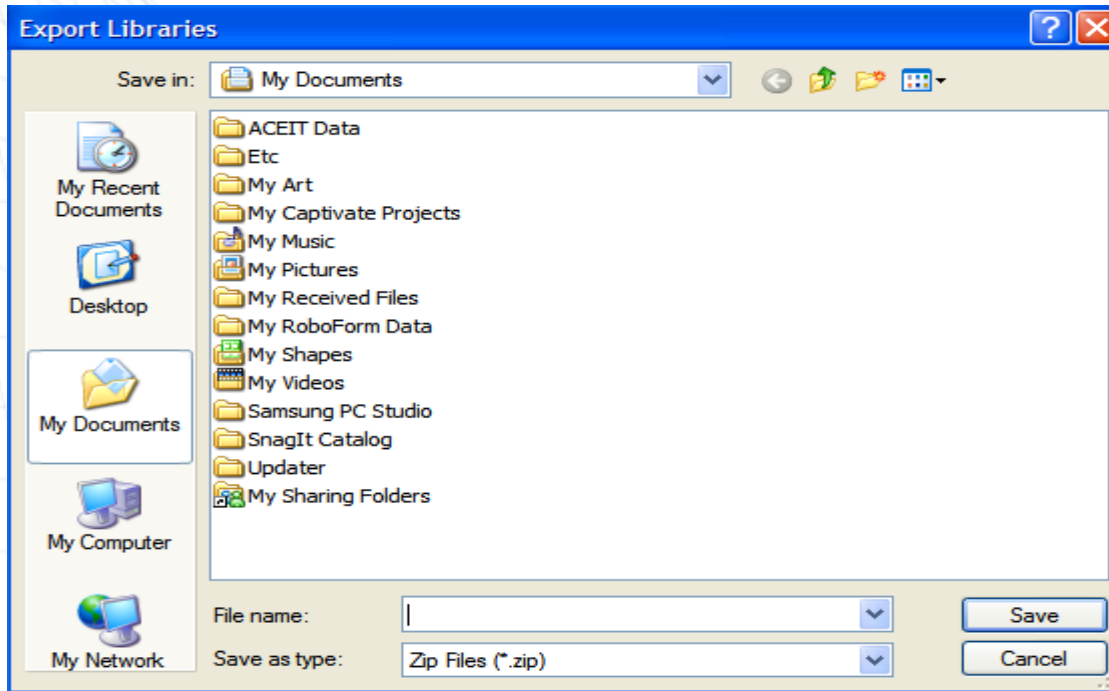
■ Alternate Step 4



# Exporting Inflation Indices

To facilitate sharing, Inflation Libraries can easily be imported or exported

- **Export Step 1:** Navigate to the custom library
- **Export Step 2:** Select **File > Export**
- **Export Step 3:** Provide a name for the table. Custom tables are XML files that are put together in a .ZIP file
- **Export Step 4:** Click **Save**. By default, the exported library is saved in the **Libraries** directory under **ACEIT Data**, but the file can be located anywhere
  - The ZIP file can be e-mailed or placed on a network drive to allow other users access



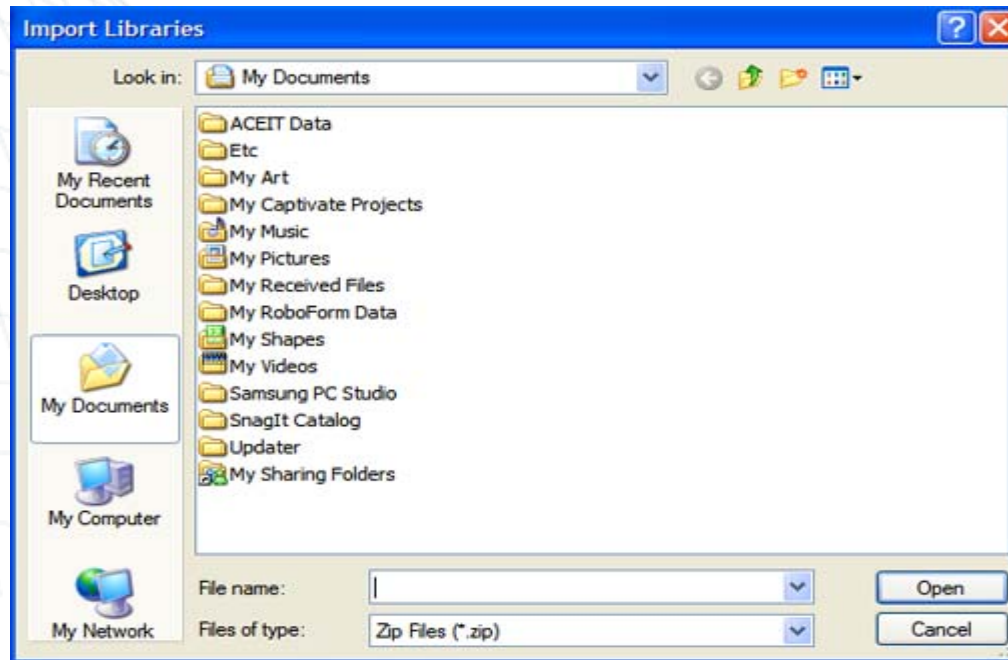




# Importing Inflation Indices

You can quickly import ACEIT 6.1 custom indices or another user's custom indices

- **Import Step 1:** Select **File > Import**
- **Import Step 2:** Select which table to import. By default it shows all databases that are in ACEIT 7.0 format (i.e. ZIP files). Navigate to a different directory and/or change the Files of Type drop down box to look for ACEIT 6.1 databases. (.DB files)
- **Import Step 3:** Select the file to import and click Open
- Librarian imports all tables and appropriations from the selected database into your custom library
  - If you have an appropriation that matches one in the import file, you'll be prompted to overwrite or ignore it





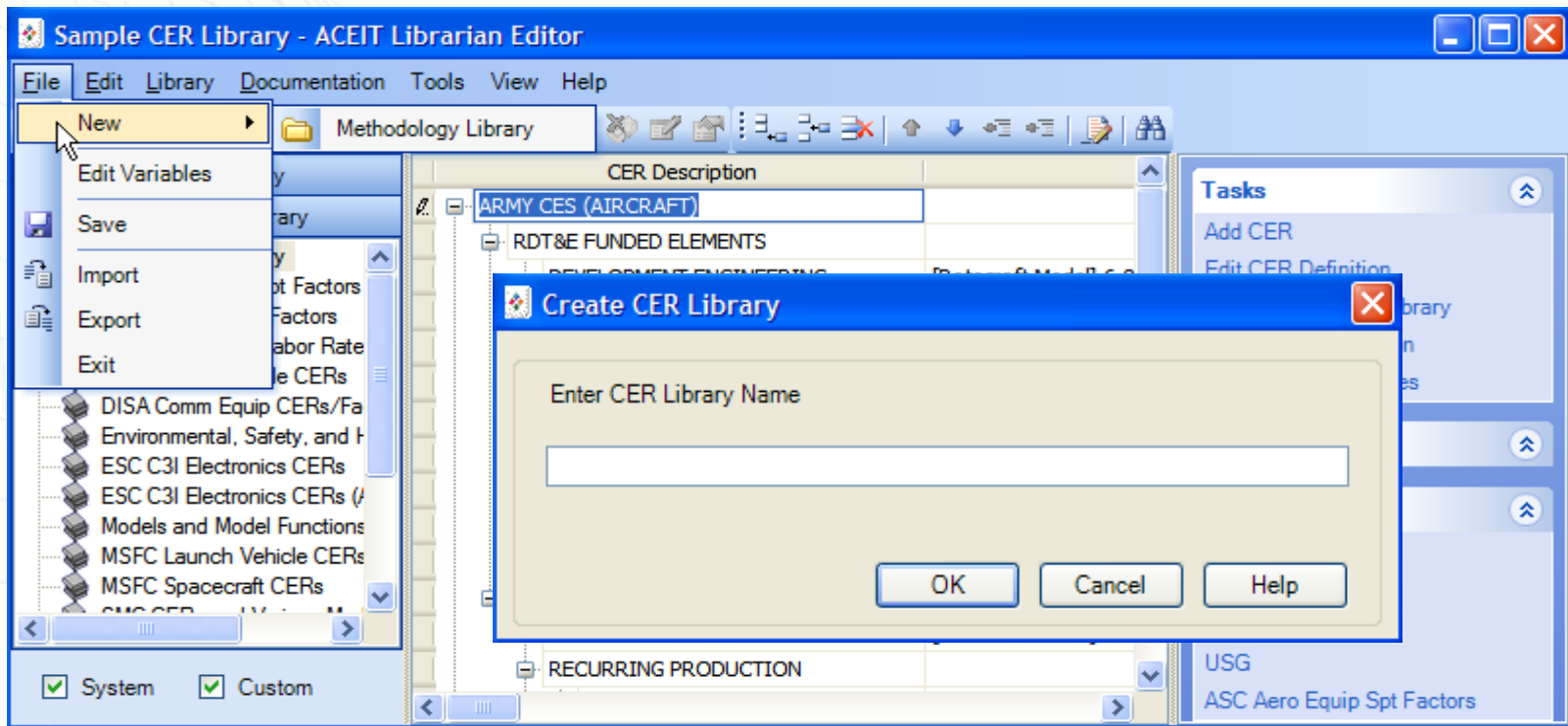
# Creating Custom CER Libraries







# Creating a New Methodology Library

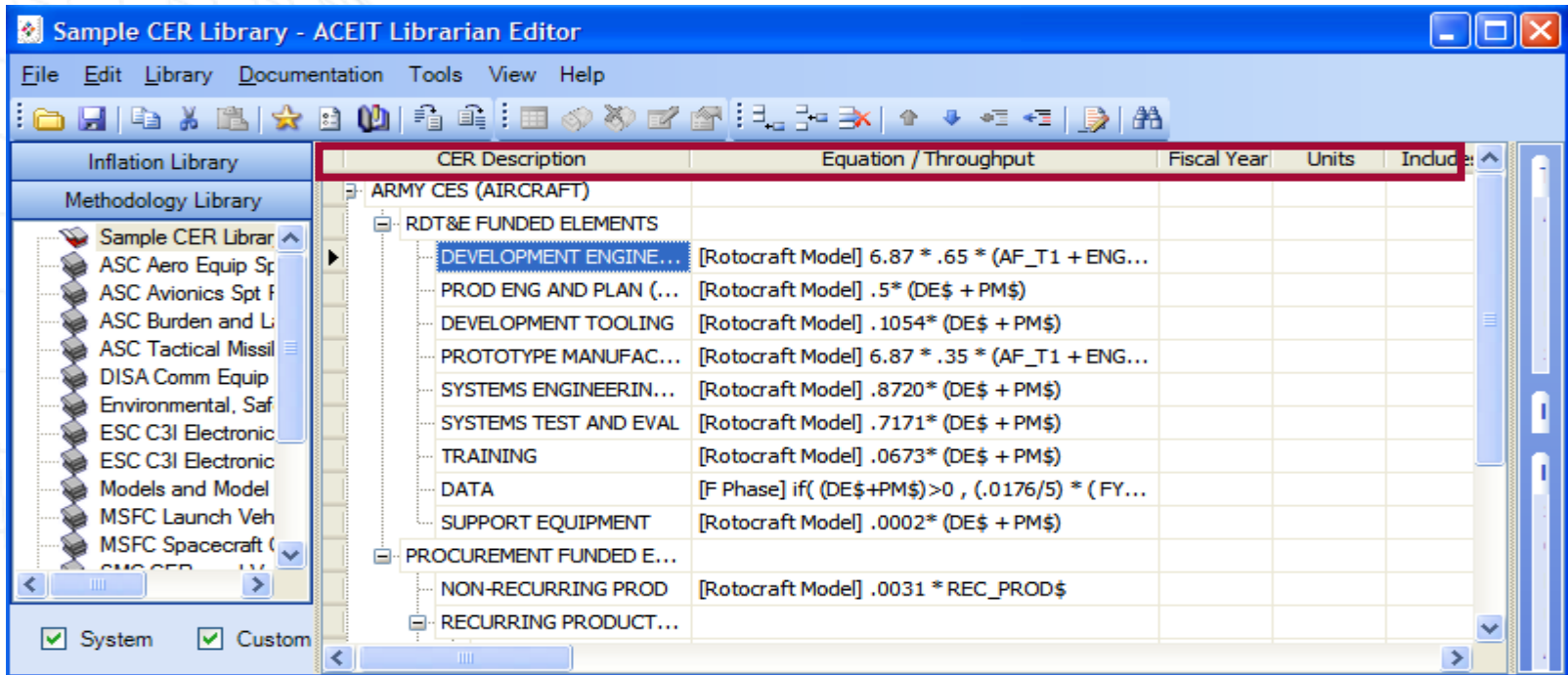
- User can add new CERs to an existing custom library or create a new library
  - By default, the Librarian contains one custom CER Library (Sample CER Library)
- **Step 1:** Navigate to the Methodology (CER) Library
- **Step 2:** Select **File > New > Methodology Library** or click **Add New Methodology Library** in tasks section
- **Step 3:** Enter information about the custom library





# Adding a Methodology

- **Step 1:** Navigate to the Methodology (CER) Library and choose the correct CER library for the new CER
- **Step 2:** Choose to add or insert a CER using one of these methods:
  - Click on the **Add CER** (  ) or **Insert CER** (  ) icon on the Methodology toolbar
  - Select **Edit > Add CER**, **Edit > Insert CER**, **Edit > Insert Child CER** from the menu
  - Select **Add CER** from the Tasks area
- **Step 3:** This moves you to the **Library View** description column to enter the information for the CER
- **Step 4:** After entering CER information, enter a CER definition by clicking on Edit Definition from the Tasks or by Right-Clicking on the CER in the Library View



Sample CER Library - ACEIT Librarian Editor

File Edit Library Documentation Tools View Help

Inflation Library	CER Description	Equation / Throughput	Fiscal Year	Units	Include
Methodology Library	ARMY CES (AIRCRAFT)				
Sample CER Librar	RDT&E FUNDED ELEMENTS				
ASC Aero Equip Sp	DEVELOPMENT ENGINE...	[Rotocraft Model] 6.87 * .65 * (AF_T1 + ENG...			
ASC Avionics Spt F	PROD ENG AND PLAN (...)	[Rotocraft Model] .5* (DE\$ + PM\$)			
ASC Burden and L	DEVELOPMENT TOOLING	[Rotocraft Model] .1054* (DE\$ + PM\$)			
ASC Tactical Missil	PROTOTYPE MANUFAC...	[Rotocraft Model] 6.87 * .35 * (AF_T1 + ENG...			
DISA Comm Equip	SYSTEMS ENGINEERIN...	[Rotocraft Model] .8720* (DE\$ + PM\$)			
Environmental, Saf	SYSTEMS TEST AND EVAL	[Rotocraft Model] .7171* (DE\$ + PM\$)			
ESC C3I Electronic	TRAINING	[Rotocraft Model] .0673* (DE\$ + PM\$)			
ESC C3I Electronic	DATA	[F Phase] if( (DE\$+PM\$)>0 , (.0176/5) * (FY...			
Models and Model	SUPPORT EQUIPMENT	[Rotocraft Model] .0002* (DE\$ + PM\$)			
MSFC Launch Veh	PROCUREMENT FUNDED E...				
MSFC Spacecraft (	NON-RECURRING PROD	[Rotocraft Model] .0031 * REC_PROD\$			
MSFC CER	RECURRING PRODUCT...				

System  Custom



# Specifying Standard Methodology Variables

CERs often contain variables used to estimate a cost, Ex: Antenna cost based on aperture  
These variables can be placed in the methodology library so users have specifics on the variable if they wish to use the CER

- **Step 1:** Navigate to the Methodology Library
- **Step 2:** Select **File > Edit Variables**
- **Step 3:** Add, edit, or delete variables in the custom library
- **Note:** For users to see the variable information in ACE when they use the CER, they must change their ACE Session Properties so ACE searches parameter libraries for definitions of undefined variables encountered. This check box is found on the Calculation tab inside Session Properties (In ACE, Select File > Properties)

	WBS/CES Description	Unique ID	Fiscal Year	Units	Includes Fee Rate
▶ S	Airborne Antenna Aperture (sq ft)	AAPER			
S	Number Stabilized Axes	AAXES			
S	Administrative Building Evaporation Rate	ABEVRATE			
S	Administrative Building Mechanical Ventilation Rate	ABMVRATE			
S	CE&D Processing Weight	ACCEDTON			
S	Clean Room AC Weight	ACCRTON			
S	L&M Facilities Weight	ACLMTON			
S	Quarters Weight	ACOTON			
S	Acquisition Type	ACQTY			
S	B-1B Platform Average Component Separation (ft)	ACS			
S	Attitude Control System (ACS) Subsystem Weight	ACSWT			
S	Active RF Distr Component	ACTIVE			
S	Active Thermal Weight	ACTWT			



# Keywords and Custom CERs

## Quickly search for a Custom CER with Keywords

- **Step 1:** Add the Keyword to the CER using the **Methodology Keyword List** column available in Librarian
- **Step 2:** Select the Keyword from the list available, or create a new keyword with description
- **Step 3:** In Librarian, select **File > Save**
- **Step 4:** Open ACE 7.0
- **Step 5:** Select **Tools > CER Library**
- **Step 6:** Search by Subject and select the correct description from the drop down list
- **Step 8:** Select the correct CER from the list at the bottom of the window
  - Alternately you can change the Destination drop down box to place the methodology in another cell on the active row

The image displays three overlapping screenshots from the ACEIT software interface:

- Librarian:** A table with columns 'Include Overhead', 'Phase Code', 'Methodology Keyword List', and 'Learning Slope'. The 'Methodology Keyword List' column is circled in red. A dropdown menu is open, showing a list of keywords such as 'A/D - A to D Converter', 'ACFT - A-Kits', 'ACS - Attitude Control Sys', 'ADCS - Att Detrmntn Ctrl Sys', and 'AGE - Aerospace Grd Equip'. The 'New Keyword' button is highlighted.
- Create New Keyword:** A dialog box with 'Keyword Items' section. The 'ID' field contains 'XYZ' and the 'Description' field contains 'All XYZ Missile CER'. Buttons for 'OK', 'Cancel', and 'Help' are visible.
- ACE 7.0:** A 'Search By' dialog box with 'Subject' checked. A dropdown list shows search results, with 'All XYZ Missile CER' selected and circled in red. Other results include 'A to D Converter', 'Aerospace Grd Equip', 'Airborne Spt Equip', 'Airframe, Structure', 'A-Kits', 'All', 'All XYZ Missile CER', 'Amplifier', 'Analog Electronics', and 'Analog Processors'. Buttons for 'Select', 'Cancel', 'Definition...', and 'Help' are present.

Red arrows indicate the flow of the process: from the 'New Keyword' button in Librarian to the 'Create New Keyword' dialog, and from the 'Search' button in ACE 7.0 to the selected result in the dropdown list.

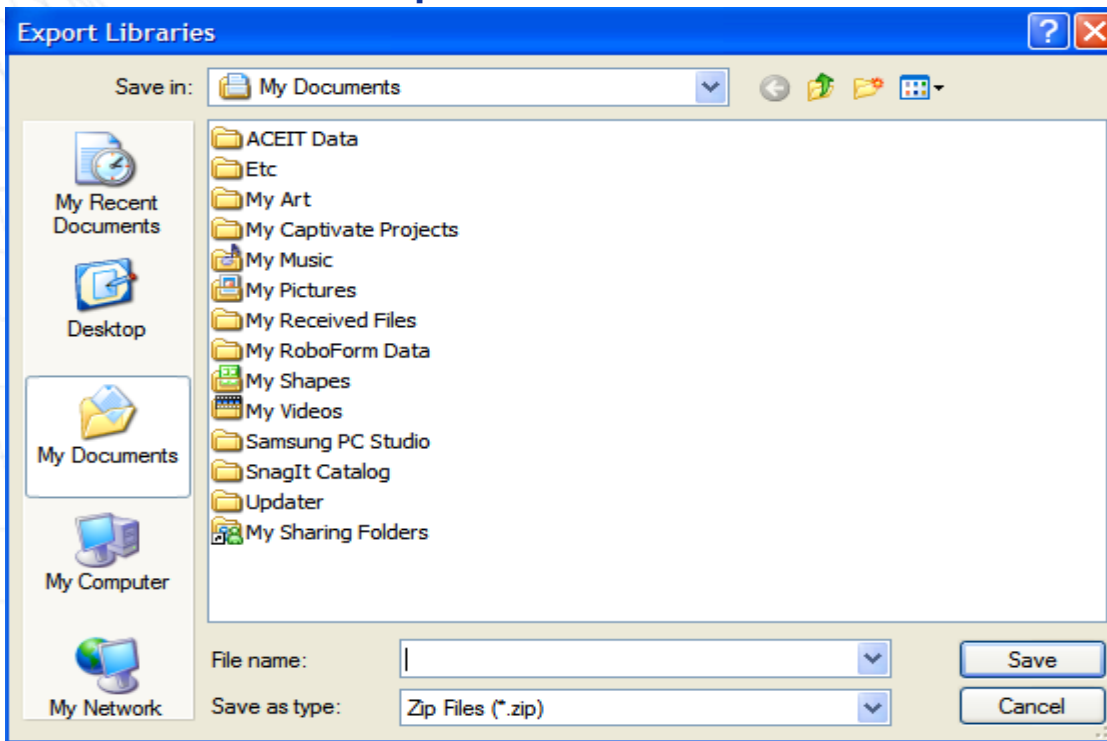




# Exporting the CER Library

To facilitate exchange and sharing, CER Libraries can easily be imported or exported

- **Export Step 1:** Navigate to the custom library
- **Export Step 2:** Select **File > Export**
- **Export Step 3:** Provide a name for the table. Custom tables are XML files that are put together in a .ZIP file
- **Export Step 4:** Click **Save**. By default, the exported library is saved in the **Libraries** directory under **ACEIT Data**, but the file can be located anywhere
  - **The ZIP file can be e-mailed or placed on a network drive to allow other users access**

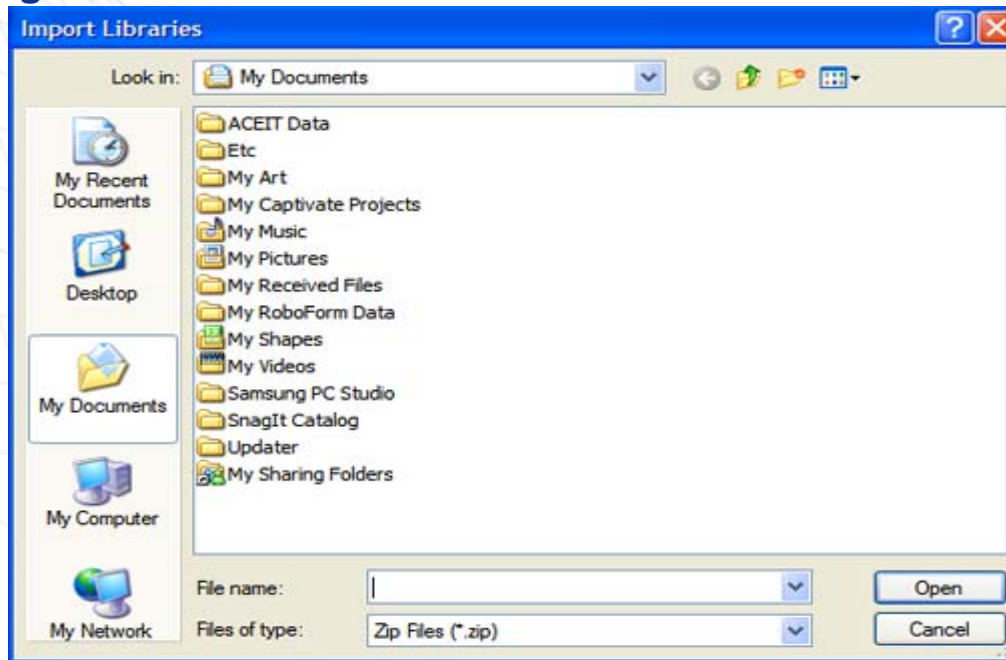




# Importing a CER Library

Import allows user to bring in ACEIT 6.1 custom methodologies or some other user's custom methodology tables

- **Import Step 1:** Select **File > Import**
- **Import Step 2:** Select which table to import. By default it shows all databases that are in ACEIT 7.0 format (i.e. ZIP files). Navigate to a different directory and/or change the Files of Type drop down box to look for ACEIT 6.1 databases. (.DB files)
- **Import Step 3:** Select the file to import and click Open
- Librarian imports all tables and methodologies from the selected database into your custom library
  - If you have a methodology that matches one in the import file, you'll be prompted to overwrite or ignore it



# Using Custom Tables





# Using Custom Inflation

Once you have created a custom Inflation Table with appropriations, you can use them in ACE

- **Step 1:** Open ACE 7.0, **Start > Programs > ACEIT 7.0 > ACE**
- **Step 2:** Select **File > Properties** and switch to **Inflation** Tab
- **Step 3:** Using the drop down box under Custom Inflation Table, select your custom table name
- The custom inflation indices are now available for use in your session. Using either codes or terms in the appropriation column you can easily use your custom inflation table in an ACE session
  - The inflation indices used in your session are shown in the **Session Rates** section of the page
  - To transfer all indices used in your session to your custom database, select **“Transfer to Custom DB”**

ACE Session Properties

General Calculation Errors **Inflation** RISK Format Summary

System Inflation Table

Name: US Government Indices for FY 2006  
As of Date: 10May2006  
Year Type: Fiscal Start Month: OCT

Custom Inflation Table

Name: Sample Table  
As of Date: 20Jul2001  
Year Type: Fiscal Start Month: OCT  
Location: Personal custom.db file

Appropriation Type

Codes (e.g., 3600)  Terms (e.g., RDTEF)

Session Rates

Code	Description	Rev Date	Table
3010	AIRCRAFT PROCURE...	19Jan2006	System
3080	OTHER PROCUREM...	19Jan2006	System
1234	Fixed 5% increase	20Jul2001	Custom

Clear Cached Rates Transfer to Custom DB...

OK Cancel Set as Default Help

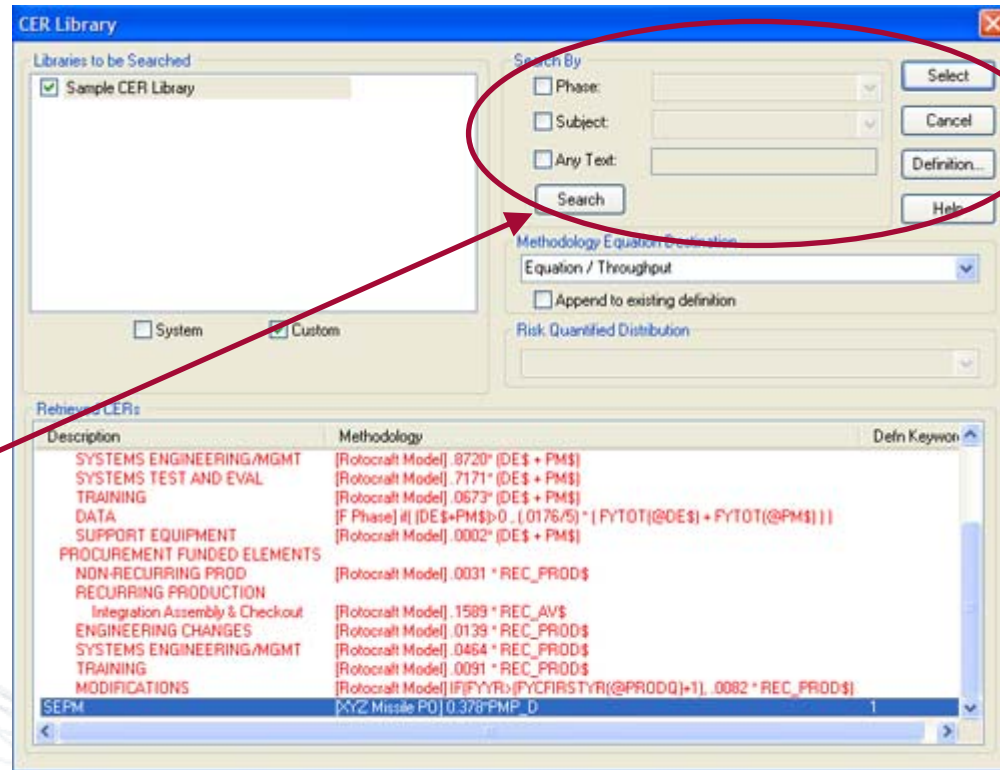




# Using Custom CERs

Once you have created a custom CER (methodology) you can easily use it in ACE 7.0

- **Step 1:** Open ACE 7.0, **Start > Programs > ACEIT 7.0 > ACE**
- **Step 2:** Switch to the Methodology window to view the Equation/Throughput column
- **Step 3:** Place the cursor on the row you wish to use the custom CER
- **Step 4:** Select Tools > CER Library, the CER Library dialog opens
- **Step 5:** Make sure the checkbox for “Custom” is selected to view the non-system libraries
- **Step 6:** Specify search information to look up the specific CER you wish to use, or simply press Search to find all CERs in the selected library
- **Step 7:** Select the desired CER from the list at bottom
- **Step 8:** Optional – Click the Definition button (if active) to view detailed information about the CER
- **Step 9:** Choose Select and the Methodology will automatically be pasted in the active cell you selected earlier (Step 3)
  - Alternately you can change the Destination drop down box to place the methodology in another cell on the active row







- **Building Inflation Table**
- **Creating Appropriation**
- **Building CER Library**
- **Creating CER**
- **Using and Sharing Custom Libraries**



Thank You





# Backup One

- Illustrate an example of data collection, calculation of overall inflation rate for collection, calculation of raw indices
- In general, the equation to calculate the index ( $I_n$ ) from base year  $b$  to year  $n$  is  $I_n = (1+R_{b+1}) * (1+R_{b+2}) * \dots * (1+R_{n-1}) * (1+R_n)$ 
  - Where  $R_n$  is the decimal rate of overall inflation for year  $n$ .
- So to calculate the index for 2008 from a base year of 2005
  - we would have  $I_{2008} = (1+R_{2006}) * (1+R_{2007}) * (1+R_{2008})$
  - From market basket data we know that  $R_{2006} = 2.925\%$  or  $.02925$ ,  $R_{2007} = .03$ , and  $R_{2008} = .0325$
  - So  $I_{2008} = (1 + .02925) * (1 + .03) * (1 + .0325) = 1.0945816 \dots$ 
    - Can be simplified to  $I_{2008} = I_{2007} * (1 + .0325) = 1.0945816$

Item #	1	2	
Item Name	Labor	Material	Overall
Contribution	50%	50%	100.0000%
<b>Annual Inflation Assumptions</b>			
2000	2.00%	1.89%	1.9450%
2001	1.50%	1.75%	1.6250%
2002	1.50%	1.75%	1.6250%
2003	1.50%	2.10%	1.8000%
2004	2.20%	2.50%	2.3500%
2005	3.00%	2.75%	2.8750%
2006	3.00%	2.85%	2.9250%
2007	3.00%	3.00%	3.0000%
2008	3.00%	3.50%	3.2500%
2009	3.00%	4.00%	3.5000%
2010	4.00%	4.50%	4.2500%

Year	Compound (Raw) Indices
2000	0.903345
2001	0.918024
2002	0.932942
2003	0.949735
2004	0.972053
2005	1.000000
2006	1.029250
2007	1.060128
2008	1.094582
2009	1.132892
2010	1.181040



# Backup Two

- **Funding considerations particular to government**
  - Full funding
    - The total cost of major *procurement* and *construction* projects is funded in the fiscal year in which they will be initiated
  - Incremental funding
    - The total cost of major *development* programs or projects is funded over two or more fiscal years based upon levels and timing of obligation requirements for the funds
- **Major issue with this policy: actual expenditures occur for several years past the initial obligation**
- **This requires the government to develop a composite index which weights the expected expenditures with the anticipated inflation**
- **Out years will have inflation that decreases the purchasing power of money**
  - To maintain purchasing power of money, you must have more money to begin with
- **Weighted index is ratio of Money Needed / Purchasing Power**
- **The index represents a composite of the out year inflation factors**
  - Weighted by the amount of money spent in each out year according to the expenditure profile (outlay rates)
- **DoD services use two different basic formulas to develop weighted indices**
  - Army uses simple weighting formula
  - Navy, USMC, Air Force, and Defense Agency use a more complex formula
  - Librarian can use both, use the drop down box to select