



TaxMap

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Internal Revenue Service (IRS)



- Agence fédérale chargée de collecter l'impôt.
- + 100.000 employés
- Centres d'appels: réponse aux contribuables par téléphone.
- En 2001, commission rapporte que 20 à 30% des réponses aux contribuables non satisfaisantes.

Centres d'appel IRS



- Centres d'appel: 25 sites
- 16,282 employés pour la gestion des comptes.
- Environ 10,000 au téléphone à un moment ou un autre.
- Certains sont formés pour le téléphone et réponse au courrier. Ils travaillent au téléphone les jours de pointe et sur le courrier les autres jours.
- Année fiscale 2004: Réponses à 13,255,149 appels et 15,840,718 appels automatiques.
 - Environ 25 Millions de réponse à d'autres services (ajustements, TPR(Transfer Pricing Regulations), no d'identification, CAF (Centralized Authorization File), etc.

Technologies de l'information à l'IRS



- Implémentation SGML en production depuis 1986-87.
- Exploration depuis 1985 (avant adoption du standard)
- Publications (*Taxpayer Information Publications*): première application de SGML dans le secteur civil.
- IRS représenté dans les comités de normalisation.



Department
of the
Treasury

Internal
Revenue
Service

Your Federal Income Tax

For Individuals

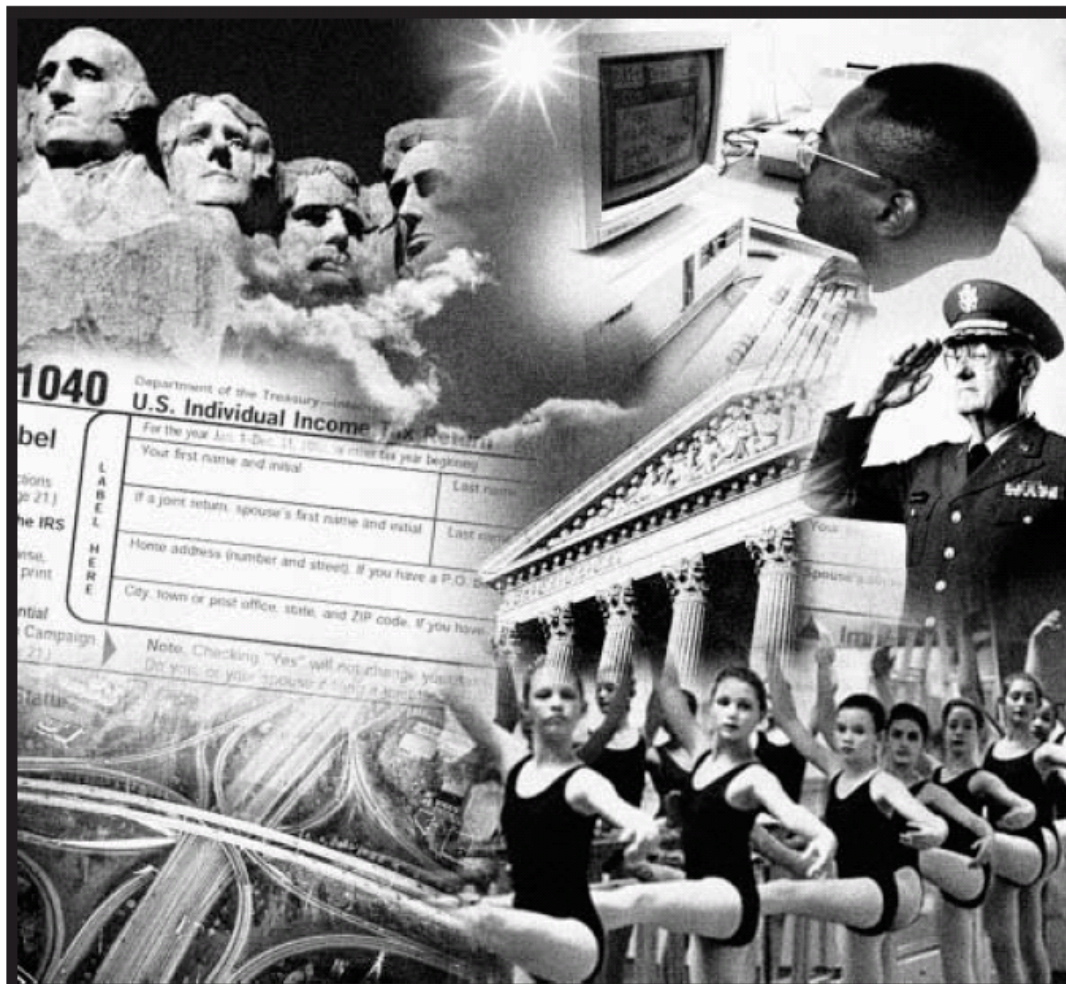
Publication 17

Catalog Number 10311G

For use in
preparing

2004
Returns

Taxpayer Information Publication



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Treasury

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Your Federal Income Tax For Individuals

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SGML

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Forms and Publications



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- ◆ Directory list of filenames

View online:

- ◆ Tax publications
- ◆ Instructions for tax forms
- ◆ Topical index to forms and publications

Order:

- ◆ Forms and publications by U.S. mail
- ◆ Tax packages
- ◆ Employer forms and instructions
- ◆ Tax Products CD-ROM (Publication 1796)

What's Hot in forms and publications

Information about:

- ◆ Extension forms
- ◆ Community based outlet programs
- ◆ Forms by fax
- ◆ File formats
- ◆ Downloading and printing
- ◆ Fill-in forms
- ◆ "Information only" forms
- ◆ Commenting on forms and publications

Related web sites:

- ◆ State tax forms
- ◆ FedForms.gov
- ◆ Business.gov forms

Web



Probe and Response Guide

1-D When to File/Extensions to File	
Determine	Reason
1. ☐ Whether taxpayer is a calendar year or a fiscal year taxpayer Select One	1 Determines due date of tax return. Refer to Publication 17, Chapter 1, "When do I have to file?"
2. ☐ Whether taxpayer/spouse is a U.S. Citizen or resident alien Select One	2 Determines if non-resident alien rules apply.
3. ☐ Whether extension is needed to file or to pay Select One	3 Determines need for extension to file tax return, not an extension to pay.
4. ☐ Type of extension to file needed Select One	4 Determines which eligibility requirements must be met.
IF Automatic 2-month extension:	4(a)-4(a)(1) Determines if taxpayer is eligible for automatic 2-month extension. Refer to

Historique de TaxMap: Intégration sémantique

- A démarré en 2001.
- Prototype sur 8 *Publications*
- Ajout des *FAQ*
- Prototype sur 33 publications
- Version de production: 95 publications
- Ajout des *Teletax Topics*
- Ajout des *Formulaires* (571) et *Instructions*
- *Connection avec le Probe and Response Guide*

Produits



- Version Intranet
- Cd-Rom “Small Business”
- Cd-Rom “Tax Products”
- Version spécifique pour auteurs du *Probe & Response Guide*
- Archives années précédentes (à partir de 2003)
- Futur: Version Internet en discussion

Fonctionnalités de TaxMap



- Réseau de navigation HTML statique.
 - Rapide
 - Marche avec tous les browsers
- Découverte et recherche par sujet.
 - Pages topiques créées automatiquement (Portails)
- Reconfigurable dynamiquement en fonction des mises à jour de documents.

Une application Topic Map



- Créé sur un modèle conforme à la norme internationale ISO/IEC 13250 Topic Maps
 - Topiques (plusieurs noms possibles)
 - Occurrences
 - Associations
- Version d'échange XTM (ISO/IEC 13250 2e éd.)
- Production avec TMLoom, produit de création de Topic Maps

Processus de création et d'édition



- Modèle défini en coopération en accord avec les besoins de l'IRS. Evolue (Extraction de l'index au début, maintenant des titres)
- Spécifications de présentation adaptées aux besoins utilisateurs.
- Topic Map modifiée par experts (Workshops en moyenne tous les 6 mois). Créé par une combinaison d'expertise humaine et de processus automatiques.

Topic Map



- Norme internationale (ISO/IEC 13250:2000-2003)
- Intégration d'information par sujets (“topiques”)

Types de Documents



- Publications (SGML --> HTML / PDF)
- Formulaire (PDF éditable / non éditable --> PDF)
- Instructions (XML/PDF --> HTML/ PDF)
- FAQs (XML --> HTML)
- TeleTax (XML --> HTML)

Types de Topiques



- Topiques principaux (Key Topics)
- Documents considérés comme Topiques:
 - Formulaires
 - Publications
- Autres topiques (non principaux)

Occurrences



- Vers publications:
 - Entières (PDF et HTML, si existe)
 - Sections (pour HTML)
- Vers FAQs, TeleTax Topics
- Rôles d'occurrences: Contiennent le titre du document et de la section.

Associations



- Topiques reliés.
- Sémantique des rôles d'association:
 - Pas de qualification
 - Relation (relié avec)

Construction de la Topic Map



- Processus Batch
- Extraction automatique du contenu balisé
 - Mots-Clés pour les FAQs
 - Titres de sections pour les Publications et les Instructions
 - Titres et numéros des formulaires
 - Titres des TeleTax Topics.
- Rôles d'occurrences construits automatiquement par scanning.
- Associations construites par:
 - Application de règles automatiques
 - Liste fournie et maintenue par experts fiscalistes.

Traitement manuel ajouté au traitement automatique

- Renommer
- Fusionner
- Relier
- Détruire
- Ajouter

Truck and Car Expenses->Car and Truck Expenses
P600 | Sales Taxes
*Key Topic*Sales Taxes
Sales Taxes=General Sales Taxes
General sales tax deduction.->General Sales Taxes
*Key Topic*50% limit
*Key Topic*Third Party Authorization
*Key Topic*Health Reimbursement Arrangement
*Key Topic*Casualty and Theft Loss
P4272 | Third Party Authorization
P4019 | Third Party Authorization
P4020 | Third Party Authorization
P470 | Third Party Authorization
F8821 | Third Party Authorization
Third Party Authorization | POA
P470 | POA

Construction de la Topic Map



- Création automatique de:
 - Pages HTML (formatage adapté aux besoins)
 - Pages Topiques
 - Tables des matières, listes de produits
 - Index
- Navigation directe entre occurrences
- Téléchargement direct de documents PDF

Demo



- TaxMap

Processus Batch



Document IRS	Modèle Topic Map IRS	Spec. Fusion IRS	Topic Map XTM IRS	Vue Navigable HTML
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Prétraitement	Extraction de l'information	Fusion et Association	Création de Topic Map	Formatage de vues navigables
Découpage	Topic Maps			
Tables de liens	Noms de Topiques, Occurrences, Rôles	Fusion par noms Application de règles	Version XTM Echange Stockage	- Docs. HTML - Index - Pages topiques - Tables des matières

Bénéfice du choix Topic Map (1/2)



- Couche sémantique séparée – N'interfère pas avec les auteurs.
- Permet une synthèse entre traitement manuel et automatique
- Intègre connaissances des experts fiscalistes

Bénéfices du choix Topic Map (2)



- Extensible (Scalable)
- Évolue et mûrit avec le temps
- Réutilisable d'une année à l'autre
- Facilite gestion des modifications

Valeur ajoutée de Tax Map



- Points d'entrée principaux pour commencer la recherche
- Courbe d'apprentissage rapide – ressemble à l'utilisation d'un index
- Contient des topics reliés par des experts fiscalistes
- Page topique – point d'entrée unique par sujet
- Création d'une ontologie pour la loi fiscale
- Accessibilité. (Pour non-voyants, mal-voyants).

Maintenance



- 2 workshops par an (été et hiver) nécessaires avec les experts fiscalistes chaque année
- De quel niveau de perfection avons-nous besoin?

Questions ouvertes



- Adaptation aux besoins utilisateurs. Les assistants téléphoniques ont encore besoin des pages imprimées. Les références ne contiennent pas aujourd'hui les numéros de page imprimée.
- Intégration avec le système de gestion de documents pour le site Web. Duplication.
- Accès site Web. Problèmes de performance.
- Taxonomies multiples et redondantes.
- Persistance. Pages topiques, documents.
- Auditabilité

Questions?



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